

CURRICULUM VITAE

José María Martín Senovilla

FAMILY NAMES: Martín Senovilla
FIRST NAME: José María
DATE OF BIRTH: 25th November 1960
E-MAIL: jmmsenovilla@outlook.com

ACADEMIC RECORD

<u>GRADUATE</u>	<u>CENTRE</u>	<u>DATE</u>
Physics	Universidad de Salamanca	June 82

Ph. D THESIS

Theoretical Physics Universidad de Salamanca September 16th, 1986

THESIS SUPERVISOR: Jesús Martín Martín

POSITION: Full Professor (since April 1999)

UNIVERSITY: University of the Basque Country

CENTRE: Facultad de Ciencia y Tecnología

DEPARTMENT: Física **ADDRESS:** P.O. Box 644, 48080 Bilbao, Spain

TELEPHONE: +34 94 6015402

FAX: +34 94 6015399, +34 94 6013500

E-MAIL: josemm.senovilla@ehu.eus

PREVIOUS SCIENTIFIC POSITIONS

<u>DATES</u>	<u>POSITION</u>	<u>INSTITUTION</u>
11/1982-12/1983	“Ayudante”	University of Salamanca
01/1983-12/1986	F.P.I Grant	University of Salamanca
01/1987-03/1987	Salamanca University Grant	University of Salamanca
03/1987-09/1987	Temporary Professor	University of Salamanca
10/1987-10/1988	“Fleming” Postdoc Grant	Queen Mary College, London
10/1988-04/1990	Reincorporation Postdoc Grant	Queen Mary College and University of Salamanca
04/1990-04/1999	Reader (“titular”)	University of Barcelona

LANGUAGES: English, French, Spanish and Catalan.

DATE: 6th January 2021

SIGNATURE:

PUBLICATIONS

(not including non-refereed proceedings nor meeting abstracts)

-
- AUTHORS:** J. Martín, J. M. M. Senovilla
TITLE: Petrov type-D perfect-fluid solutions in generalized Kerr-Schild form.
JOURNAL/BOOK: Journal of Mathematical Physics
Volume: 27 **First Page:** 265 **Last Page:** 270 **Year:** 1986 **Country:** USA
-
- AUTHORS:** J. M. M. Senovilla
TITLE: New LRS perfect-fluid cosmological models.
JOURNAL/BOOK: Classical and Quantum Gravity
Volume: 4 **First Page:** 1449 **Last Page:** 1455 **Year:** 1987 **Country:** GBR
-
- AUTHORS:** J. M. M. Senovilla
TITLE: Stationary axisymmetric perfect-fluid metrics with $q+3p=\text{const.}$
JOURNAL/BOOK: Physics Letters A
Volume: 123 **First Page:** 211 **Last Page:** 214 **Year:** 1987 **Country:** NLD
-
- AUTHORS:** J. M. M. Senovilla
TITLE: On Petrov type-D stationary axisymmetric rigidly rotating perfect-fluid metrics.
JOURNAL/BOOK: Classical and Quantum Gravity
Volume: 4 **First Page:** L115 **Last Page:** L119 **Year:** 1987 **Country:** GBR
-
- AUTHORS:** F. Martín-Pascual, J. M. M. Senovilla
TITLE: On Petrov type D and II perfect-fluid solutions in generalized Kerr-Schild form.
JOURNAL/BOOK: Journal of Mathematical Physics
Volume: 29 **First Page:** 937 **Last Page:** 944 **Year:** 1988 **Country:** USA
-
- AUTHORS:** A. Feinstein, J. M. M. Senovilla
TITLE: A new inhomogeneous cosmological perfect-fluid solution with $p = \rho/3$.
JOURNAL/BOOK: Classical and Quantum Gravity
Volume: 6 **First Page:** L89 **Last Page:** L91 **Year:** 1989 **Country:** GBR
-
- AUTHORS:** A. Feinstein, J. M. M. Senovilla
TITLE: Collision between variably polarized gravitational wave and a shell of null matter.
JOURNAL/BOOK: Physics Letters A
Volume: 138 **First Page:** 102 **Last Page:** 104 **Year:** 1989 **Country:** NLD
-
- AUTHORS:** A. Feinstein, M. A. H. MacCallum, J. M. M. Senovilla
TITLE: On the ambiguous evolution and production of matter in space-times with colliding waves.
JOURNAL/BOOK: Classical and Quantum Gravity
Volume: 6 **First Page:** L217 **Last Page:** L221 **Year:** 1989 **Country:** GBR
-
- AUTHORS:** J. M. M. Senovilla
TITLE: New class of inhomogeneous cosmological perfect-fluid solutions without big-bang singularity.
JOURNAL/BOOK: Physical Review Letters
Volume: 64 **First Page:** 2219 **Last Page:** 2221 **Year:** 1990 **Country:** USA
-
- AUTHORS:** J. M. M. Senovilla
TITLE: ¿Es la gran explosión una predicción inevitable de la relatividad general?
JOURNAL/BOOK: Investigación y Ciencia (Spanish version of Scientific American)
Volume: 166 **First Page:** 35 **Last Page:** 36 **Year:** 1990 **Country:** ESP
-
- AUTHORS:** J. M. M. Senovilla
TITLE: Senovilla replies
JOURNAL/BOOK: Physical Review Letters
Volume: 67 **First Page:** 2110 **Last Page:** 2110 **Year:** 1991 **Country:** USA
-
- AUTHORS:** J. M. M. Senovilla
TITLE: Singularidades en Relatividad General.
JOURNAL/BOOK: Investigación y Ciencia (Scientific American)
Volume: 173 **First Page:** 18 **Last Page:** 26 **Year:** 1991 **Country:** ESP
-
- AUTHORS:** J. M. M. Senovilla
TITLE: El origen del Universo: Los teoremas de singularidades y sus versiones populares.
JOURNAL/BOOK: Revista Española de Física
Volume: 5 **First Page:** 4 **Last Page:** 5 **Year:** 1991 **Country:** ESP
-

AUTHORS: F. Fayos, X. Jaén, E. Llanta, J. M. M. Senovilla
TITLE: Matching of the Vaidya and Robertson-Walker metrics.
JOURNAL/BOOK: Classical and Quantum Gravity
Volume: 8 First Page: 2057 Last Page: 2068 Year: 1991 Country: GBR

AUTHORS: F. J. Chinea, L. Fernández-Jambrina, J. M. M. Senovilla
TITLE: Singularity-free space-time.
JOURNAL/BOOK: Physical Review D
Volume: 45 2 First Page: 481 Last Page: 486 Year: 1992 Country: USA

AUTHORS: E. Ruiz, J. M. M. Senovilla
TITLE: General class of inhomogeneous perfect-fluid solutions.
JOURNAL/BOOK: Physical Review D
Volume: 45 6 First Page: 1995 Last Page: 2005 Year: 1992 Country: USA

AUTHORS: F. Fayos, X. Jaén, E. Llanta, J. M. M. Senovilla
TITLE: The interiors of Vaidya's radiating metric: gravitational collapse.
JOURNAL/BOOK: Physical Review D
Volume: 45 8 First Page: 2732 Last Page: 2738 Year: 1992 Country: USA

AUTHORS: J. M. M. Senovilla
TITLE: New family of stationary and axisymmetric perfect-fluid solutions.
JOURNAL/BOOK: Classical and Quantum Gravity
Volume: 9 11 First Page: L167 Last Page: L169 Year: 1992 Country: GBR

AUTHORS: J. M. M. Senovilla
TITLE: Epilogue to <i>Controversias sobre las distancias cósmicas y los cuásares</i> , by Halton Arp
JOURNAL/BOOK: TUSQUETS editores. Colección Metatemáticas. Libros para pensar la ciencia.
Volume: 27 First Page: 289 Last Page: 292 Year: 1992 Country: ESP

AUTHORS: M. Mars, J. M. M. Senovilla
TITLE: Axial symmetry and conformal Killings.
JOURNAL/BOOK: Classical and Quantum Gravity
Volume: 10 First Page: 1633 Last Page: 16.. Year: 1993 Country: GBR

AUTHORS: M. Mars, J. M. M. Senovilla
TITLE: Geometry of general hypersurfaces in space-time: junction conditions.
JOURNAL/BOOK: Classical and Quantum Gravity
Volume: 10 First Page: 1865 Last Page: 1897 Year: 1993 Country: GBR

AUTHORS: J. M. M. Senovilla
TITLE: Singularity-free spacetimes.
JOURNAL/BOOK: Lectures Notes in Physics. <i>Rotating objects and relativistic physics</i> .
Volume: Springer 423 First Page: 185 Last Page: 193 Year: 1993 Country: GER

AUTHORS: J. M. M. Senovilla
TITLE: Stationary and axisymmetric perfect-fluid solutions to Einstein's equations.
JOURNAL/BOOK: Lectures Notes in Physics. <i>Rotating objects and relativistic physics</i> .
Volume: Springer 423 First Page: 73 Last Page: 88 Year: 1993 Country: GER

AUTHORS: J. M. M. Senovilla
TITLE: Is the initial singularity of the Universe inevitable from the classical point of view?
JOURNAL/BOOK: Perspectives on High Energy Physics and Cosmology (Conversaciones de Madrid)
Volume: World Scientific First Page: 148 Last Page: 153 Year: 1993 Country: USA

AUTHORS: J. M. M. Senovilla, C. F. Sopena
TITLE: New G_1 and G_2 inhomogeneous cosmological models from the generalized Kerr-Schild transformation
JOURNAL/BOOK: Classical and Quantum Gravity
Volume: 11 First Page: 2073 Last Page: 2083 Year: 1994 Country: GBR

AUTHORS: M. Mars, J. M. M. Senovilla
TITLE: Stationary and axisymmetric perfect fluid solutions with conformal motion
JOURNAL/BOOK: Classical and Quantum Gravity
Volume: 11 First Page: 3049 Last Page: 3068 Year: 1994 Country: GBR

AUTHORS: M. Mars, J. M. M. Senovilla
TITLE: On 'an infinite perfect fluid in cylindrically symmetric steady differential rotation'
JOURNAL/BOOK: Classical and Quantum Gravity
Volume: 12 First Page: 2071 Last Page: 2076 Year: 1995 Country: GBR

AUTHORS: A. Molina, J. M. M. Senovilla (editors)
TITLE: Inhomogeneous Cosmological Models
JOURNAL/BOOK: Spanish Relativity Meeting 94. World Scientific.
Volume: Proceedings of the ERE-94 Meeting Year: 1995 Country: SIN

AUTHORS: F. Fayos, M. M. Martín-Prats, J. M. M. Senovilla
TITLE: On the extension of Vaidya and Vaidya-Reissner-Nordström spacetimes
JOURNAL/BOOK: Classical and Quantum Gravity
Volume: 12 First Page: 2565 Last Page: 2576 Year: 1995 Country: GBR

AUTHORS: J. M. M. Senovilla
TITLE: Towards realistic singularity-free cosmological models
JOURNAL/BOOK: Physical Review D
Volume: 53 First Page: 1799 Last Page: 1807 Year: 1996 Country: USA

AUTHORS: M. Mars, M. M. Martín-Prats, J. M. M. Senovilla
TITLE: Models of regular Schwarzschild black holes satisfying weak energy conditions
JOURNAL/BOOK: Classical and Quantum Gravity
Volume: 13 First Page: L51 Last Page: L58 Year: 1996 Country: GBR

AUTHORS: M. Mars, M. M. Martín-Prats, J. M. M. Senovilla
TITLE: The $2m \leq r$ property of spherically symmetric static space-times
JOURNAL/BOOK: Physics Letters A
Volume: 218 First Page: 147 Last Page: 150 Year: 1996 Country: NLD

AUTHORS: F. Fayos, J. M. M. Senovilla, R. Torres
TITLE: General matching of two spherically symmetric spacetimes
JOURNAL/BOOK: Physical Review D
Volume: 54 First Page: 4862 Last Page: 4872 Year: 1996 Country: USA

AUTHORS: M. Mars, J. M. M. Senovilla
TITLE: Stationary and axisymmetric perfect fluids with one conformal Killing vector
JOURNAL/BOOK: Classical and Quantum Gravity
Volume: 13 First Page: 2763 Last Page: 2781 Year: 1996 Country: GBR

AUTHORS: M. Mars, J. M. M. Senovilla
TITLE: Study of a family of stationary and axially symmetric differentially rotating perfect fluids
JOURNAL/BOOK: Physical Review D
Volume: 54 First Page: 6166 Last Page: 6180 Year: 1996 Country: USA

AUTHORS: M. Á. G. Bonilla, M. Mars, J. M. M. Senovilla, C. F. Sopena, R. Vera
TITLE: Comment on “Integrability conditions for irrotational dust with a purely electric Weyl tensor”
JOURNAL/BOOK: Physical Review D
Volume: 54 First Page: 6565 Last Page: 6566 Year: 1996 Country: USA

AUTHORS: M. Á. G. Bonilla, J. M. M. Senovilla
TITLE: Some properties of the Bel and Bel-Robinson tensors
JOURNAL/BOOK: General Relativity and Gravitation
Volume: 29 First Page: 91 Last Page: 116 Year: 1997 Country: USA

AUTHORS: M. Mars, J. M. M. Senovilla
TITLE: Non-diagonal G_2 separable perfect-fluid spacetimes
JOURNAL/BOOK: Classical and Quantum Gravity
Volume: 14 First Page: 205 Last Page: 226 Year: 1997 Country: GBR

AUTHORS: M. Á. G. Bonilla, J. M. M. Senovilla
TITLE: Very simple proof of the causal propagation of gravity in vacuum
JOURNAL/BOOK: Physical Review Letters
Volume: 78 First Page: 783 Last Page: 786 Year: 1997 Country: USA

AUTHORS: J. M. M. Senovilla, R. Vera
TITLE: Impossibility of the cylindrically symmetric Einstein-Straus model
JOURNAL/BOOK: Physical Review Letters
Volume: 78 First Page: 2284 Last Page: 2287 Year: 1997 Country: USA

AUTHORS: J. M. M. Senovilla, R. Vera
TITLE: Dust G_2 cosmological models
JOURNAL/BOOK: Classical and Quantum Gravity
Volume: 14 First Page: 3481 Last Page: 3487 Year: 1997 Country: GBR

AUTHORS: J. M. M. Senovilla, C. F. Sopena, P. Szekeres
TITLE: Theorems on shear-free perfect fluids with their Newtonian analogues
JOURNAL/BOOK: General Relativity and Gravitation
Volume: 30 **First Page:** 389 **Last Page:** 411 **Year:** 1998 **Country:** USA

AUTHORS: J. M. M. Senovilla
TITLE: Singularity theorems and their consequences
JOURNAL/BOOK: General Relativity and Gravitation
Volume: 30 **First Page:** 701 **Last Page:** 848 **Year:** 1998 **Country:** USA

AUTHORS: J. M. M. Senovilla, R. Vera
TITLE: G_2 cosmological models separable in non-comoving coordinates
JOURNAL/BOOK: Classical and Quantum Gravity
Volume: 15 **First Page:** 1737 **Last Page:** 1758 **Year:** 1998 **Country:** GBR

AUTHORS: M. Mars, J. M. M. Senovilla
TITLE: On the construction of global models describing rotating bodies; uniqueness of the exterior grav. field
JOURNAL/BOOK: Modern Physics Letters A
Volume: 13 **First Page:** 1509 **Last Page:** 1519 **Year:** 1998 **Country:** SIN

AUTHORS: J. M. M. Senovilla
TITLE: Comment on "Theorem for nonrotating singularity-free universes"
JOURNAL/BOOK: Physical Review Letters
Volume: 81 **First Page:** 5032 **Last Page:** 5032 **Year:** 1998 **Country:** USA

AUTHORS: J. M. M. Senovilla
TITLE: Singularity theorems and inhomogeneous cosmological models
JOURNAL/BOOK: Proc. Int. Sem. Math. Cosmol., Potsdam 1998.
Volume: World Scientific **First Page:** 104 **Last Page:** 112 **Year:** 1998 **Country:** SIN

AUTHORS: J. M. M. Senovilla, R. Vera
TITLE: Segre decomposition of spacetimes
JOURNAL/BOOK: Classical and Quantum Gravity
Volume: 16 **First Page:** 1185 **Last Page:** 1196 **Year:** 1999 **Country:** GBR

AUTHORS: J. M. M. Senovilla
TITLE: Singularities and singularity theorems in General Relativity
JOURNAL/BOOK: Coherent states, quantization, and gravity, **First Page:** 221 **Last Page:** 233
Volume: Proceedings of the XVII-th (1998) Bialowieza Workshop On Geometric Methods in Physics
Year: 2001 **Eds.:** M Schlichenmaier, A Strasburger, S Twareque Ali, A Odziejewicz

AUTHORS: M. Mars, J. M. M. Senovilla, R. Vera
TITLE: Atoms against the universe
JOURNAL/BOOK: Physics World
Volume: 12 **Issue:** 7 **First Page:** 20 **Last Page:** 21 **Year:** 1999 **Country:** GBR

AUTHORS: J. Carot, J. M. M. Senovilla, R. Vera
TITLE: On the definition of cylindrical symmetry
JOURNAL/BOOK: Classical and Quantum Gravity
Volume: 16 **First Page:** 3025 **Last Page:** 3034 **Year:** 1999 **Country:** GBR

AUTHORS: G. Bergqvist, J. M. M. Senovilla
TITLE: On the causal propagation of fields
JOURNAL/BOOK: Classical and Quantum Gravity
Volume: 16 **First Page:** L55 **Last Page:** L61 **Year:** 1999 **Country:** GBR

AUTHORS: M. Mars, J. M. M. Senovilla
TITLE: Comment on "A generalization of the Wahlquist solution"
JOURNAL/BOOK: International Journal of Modern Physics D
Volume: 8 **First Page:** 753 **Last Page:** 754 **Year:** 1999 **Country:** SIN

AUTHORS: J. M. M. Senovilla
TITLE: (Super)ⁿ-Energy for Arbitrary Fields and its Interchange: Conserved Quantities
JOURNAL/BOOK: Modern Physics Letters A
Volume: 15 **First Page:** 159 **Last Page:** 165 **Year:** 2000 **Country:** SIN

AUTHORS: J. M. M. Senovilla
TITLE: Super-energy tensors
JOURNAL/BOOK: Classical and Quantum Gravity
Volume: 17 First Page: 2799 Last Page: 2842 Year: 2000 Country: GBR

AUTHORS: J. M. M. Senovilla, R. Vera
TITLE: Cylindrically symmetric dust spacetime
JOURNAL/BOOK: Classical and Quantum Gravity
Volume: 17 First Page: 2843 Last Page: 2846 Year: 2000 Country: GBR

AUTHORS: J. M. M. Senovilla
TITLE: Editor's Note on "Radiation states and the problem of energy in General Relativity"
JOURNAL/BOOK: General Relativity and Gravitation
Volume: 32 First Page: 2043 Last Page: 2046 Year: 2000 Country: NDL

AUTHORS: B. Coll, S.R. Hildebrandt, J. M. M. Senovilla
TITLE: Kerr-Schild symmetries
JOURNAL/BOOK: General Relativity and Gravitation
Volume: 33 First Page: 649 Last Page: 670 Year: 2001 Country: NDL

AUTHORS: J. M. M. Senovilla, R. Vera
TITLE: New family of inhomogeneous γ -law cosmologies: example of gravitational waves in a homogeneous $p = \rho/3$ background
JOURNAL/BOOK: Physical Review D
Volume: 63 First Page: 084008-1 Last Page: 084008-12 Year: 2001 Country: USA

AUTHORS: M.Mars, J. M. M. Senovilla, R. Vera
TITLE: Signature change on the brane
JOURNAL/BOOK: Physical Review Letters
Volume: 86 First Page: 4219 Last Page: 4222 Year: 2001 Country: USA

AUTHORS: G. Bergqvist, J. M. M. Senovilla
TITLE: Null cone preserving maps, causal tensors and algebraic Rainich theory
JOURNAL/BOOK: Classical and Quantum Gravity
Volume: 18 First Page: 5299 Last Page: 5325 Year: 2001 Country: GBR

AUTHORS: J. M. M. Senovilla
TITLE: Trapped surfaces, horizons and exact solutions in higher dimensions
JOURNAL/BOOK: Classical and Quantum Gravity
Volume: 19 First Page: L113 Last Page: L119 Year: 2002 Country: GBR

AUTHORS: A. García-Parrado, J. M. M. Senovilla
TITLE: Causal relationship: A new tool for the causal characterization of Lorentzian manifolds
JOURNAL/BOOK: Classical and Quantum Gravity
Volume: 20 First Page: 625 Last Page: 664 Year: 2003 Country: GBR

AUTHORS: A. García-Parrado, J. M. M. Senovilla
TITLE: Causal symmetries
JOURNAL/BOOK: Classical and Quantum Gravity
Volume: 20 First Page: L139 Last Page: L146 Year: 2003 Country: GBR

AUTHORS: F. Fayos, J. M. M. Senovilla, R. Torres
TITLE: Spherically symmetric models for charged radiating stars and voids I: Charge bound
JOURNAL/BOOK: Classical and Quantum Gravity
Volume: 20 First Page: 2579 Last Page: 2594 Year: 2003 Country: GBR

AUTHORS: G. Bergqvist, I. Eriksson, J. M. M. Senovilla
TITLE: New electromagnetic conservation laws
JOURNAL/BOOK: Classical and Quantum Gravity
Volume: 20 First Page: 2663 Last Page: 2668 Year: 2003 Country: GBR

AUTHORS: J. M. M. Senovilla
TITLE: Superenergy tensors and their applications
JOURNAL/BOOK: Publicaciones de la Real Sociedad Matemática Española
Volume: 5 First Page: 261 Last Page: 283 Year: 2003 Country: ESP

AUTHORS: A. García-Parrado, J. M. M. Senovilla
TITLE: Causal relations and their applications
JOURNAL/BOOK: Publicaciones de la Real Sociedad Matemática Española
Volume: 5 First Page: 155 Last Page: 169 Year: 2003 Country: ESP

AUTHORS: R. Lazkoz, J. M. M. Senovilla, R. Vera
TITLE: Conserved super-energy currents
JOURNAL/BOOK: Classical and Quantum Gravity
Volume: 20 First Page: 4135 Last Page: 4152 Year: 2003 Country: GBR

AUTHORS: A. Barnes, J. M. M. Senovilla
TITLE: Comment on “Conformally flat stationary axisymmetric metrics”
JOURNAL/BOOK: gr-qc/0305091
Year: 2003

AUTHORS: M. Mars, J. M. M. Senovilla
TITLE: Trapped surfaces and symmetries
JOURNAL/BOOK: Classical and Quantum Gravity
Volume: 20 First Page: L293 Last Page: L300 Year: 2003 Country: GBR

AUTHORS: J. M. M. Senovilla
TITLE: On the existence of horizons in spacetimes with vanishing curvature invariants
JOURNAL/BOOK: Journal of High Energy Physics
Volume: 11, No: 046 First Page: 1 Last Page: 6 Year: 2003 Country: GBR

AUTHORS: A. García-Parrado, J. M. M. Senovilla
TITLE: General study and basic properties of causal symmetries
JOURNAL/BOOK: Classical and Quantum Gravity
Volume: 21 First Page: 661 Last Page: 696 Year: 2004 Country: UK

AUTHORS: A. García-Parrado, J. M. M. Senovilla
TITLE: Bi-conformal vector fields and their applications
JOURNAL/BOOK: Classical and Quantum Gravity
Volume: 21 First Page: 2153 Last Page: 2177 Year: 2004 Country: UK

AUTHORS: S. B. Edgar, J. M. M. Senovilla
TITLE: A local potential for the Weyl tensor in all dimensions
JOURNAL/BOOK: Classical and Quantum Gravity
Volume: 21 First Page: L133 Last Page: L137 Year: 2004 Country: UK

AUTHORS: A. García-Parrado, J. M. M. Senovilla
TITLE: Causal structures and causal boundaries
JOURNAL/BOOK: Classical and Quantum Gravity
Volume: 22 First Page: R1 Last Page: R84 Year: 2005 Country: UK

AUTHORS: S. B. Edgar, J. M. M. Senovilla
TITLE: A weighted de Rham operator acting on arbitrary tensor fields and their local potentials
JOURNAL/BOOK: Journal of Geometry and Physics
Volume: 56 First Page: 2135 Last Page: 2162 Year: 2006 Country: NDL

AUTHORS: J. M. M. Senovilla
TITLE: The universal ‘energy’ operator
JOURNAL/BOOK: Classical and Quantum Gravity
Volume: 23 First Page: 7143 Last Page: 7147 Year: 2006 Country: UK

AUTHORS: J. M. M. Senovilla
TITLE: Symmetric hyperbolic systems for a large class of fields in arbitrary dimension
JOURNAL/BOOK: General Relativity and Gravitation
Volume: 39 First Page: 361 Last Page: 386 Year: 2007 Country: GER

AUTHORS: J. M. M. Senovilla
TITLE: The Schwarzschild solution: corrections to the editorial note
JOURNAL/BOOK: General Relativity and Gravitation
Volume: 39 First Page: 685 Last Page: 693 Year: 2007 Country: GER

AUTHORS: J. M. M. Senovilla
TITLE: Classification of spacelike surfaces in spacetime
JOURNAL/BOOK: Classical and Quantum Gravity
Volume: 24 First Page: 3091 Last Page: 3124 Year: 2007 Country: UK

AUTHORS: J. M. M. Senovilla
TITLE: A singularity theorem based on spatial averages
JOURNAL/BOOK: Pramana, Journal of Physics (Special Issue: Raychaudhuri equation at the crossroads)
Volume: 69 First Page: 31 Last Page: 47 Year: 2007 Country: IND

AUTHORS: M.Mars, J. M. M. Senovilla, R.Vera
TITLE: Lorentzian and signature changing branes
JOURNAL/BOOK: Physical Review D
Volume: 76 **First Page:** 044029-1 **Last Page:** 044029-22 **Year:** 2007 **Country:** USA

AUTHORS: M. Sánchez, J. M. M. Senovilla
TITLE: A note on the uniqueness of global static decompositions
JOURNAL/BOOK: Classical and Quantum Gravity
Volume: 24 **First Page:** 6121 **Last Page:** 6126 **Year:** 2007 **Country:** UK

AUTHORS: J. M. M. Senovilla
TITLE: A Reformulation of the Hoop Conjecture
JOURNAL/BOOK: Europhysics Letters
Volume: 81 **First Page:** 20004-p1 **Last Page:** 20004-p6 **Year:** 2008 **Country:** UK

AUTHORS: M.Mars, J. M. M. Senovilla, R.Vera
TITLE: Is the accelerated expansion evidence of a forthcoming change of signature on the brane?
JOURNAL/BOOK: Physical Review D
Volume: 77 **First Page:** 027501-1 **Last Page:** 027501-4 **Year:** 2008 **Country:** USA

AUTHORS: J. M. M. Senovilla
TITLE: Summary of Session A1 in GR18: Exact Solutions and Their Interpretation
JOURNAL/BOOK: Classical and Quantum Gravity
Volume: 25 **First Page:** 114014-1 **Last Page:** 114014-8 **Year:** 2008 **Country:** UK

AUTHORS: M. Mars, J. M. M. Senovilla
TITLE: Comment on ‘Stationary perfect fluid solutions with differential rotation’
JOURNAL/BOOK: General Relativity and Gravitation
Volume: 40 **First Page:** 2241 **Last Page:** 2247 **Year:** 2008 **Country:** GER

AUTHORS: J. M. M. Senovilla
TITLE: 2nd-order symmetric Lorentzian manifolds I: characterization and general results
JOURNAL/BOOK: Classical and Quantum Gravity
Volume: 25 **First Page:** 245011-1 **Last Page:** 245011-25 **Year:** 2008 **Country:** UK

AUTHORS: I. Bengtsson, J. M. M. Senovilla
TITLE: Note on trapped surfaces in the Vaidya solution
JOURNAL/BOOK: Physical Review D
Volume: 79 **First Page:** 024027-1 **Last Page:** 024027-6 **Year:** 2009 **Country:** USA

AUTHORS: I. Eriksson, J. M. M. Senovilla
TITLE: Note on (conformally) semi-symmetric spacetimes
JOURNAL/BOOK: Classical and Quantum Gravity
Volume: 27 **First Page:** 027001-1 **Last Page:** 027001-5 **Year:** 2010 **Country:** UK

AUTHORS: G. J. Galloway, J. M. M. Senovilla
TITLE: Singularity theorems based on trapped submanifolds of arbitrary co-dimension
JOURNAL/BOOK: Classical and Quantum Gravity
Volume: 27 **First Page:** 152002-1 **Last Page:** 152002-10 **Year:** 2010 **Country:** UK

AUTHORS: J. M. M. Senovilla
TITLE: Algebraic classification of the Weyl tensor in higher dimensions based on its “superenergy” tensor
JOURNAL/BOOK: Classical and Quantum Gravity
Volume: 27 **First Page:** 222001-1 **Last Page:** 222001-7 **Year:** 2010 **Country:** UK

AUTHORS: I. Bengtsson, J. M. M. Senovilla
TITLE: Region with trapped surfaces in spherical symmetry, its core, and their boundaries
JOURNAL/BOOK: Physical Review D
Volume: 83 **First Page:** 044012-1 **Last Page:** 044012-30 **Year:** 2011 **Country:** USA

AUTHORS: J. M. M. Senovilla
TITLE: Trapped surfaces
JOURNAL/BOOK: International Journal of Modern Physics D
Volume: 20 **First Page:** 2139 **Last Page:** 2168 **Year:** 2011 **Country:** SIN

AUTHORS (por orden de firma): J. M. M. Senovilla
TITLE: Singularity Theorems in General Relativity: Achievements and Open Questions
JOURNAL/BOOK: Einstein and the Changing Worldviews of Physics, Chapter 15
Volume: Einstein Studies 12 (Birkhäuser) **Year:** 2012 **City:** New York **Country:** USA
ISBN: 978-0-8176-4939-5 **DOI :** DOI 10.1007/978-0-8176-4940-1

<p>AUTHORS: O.F. Blanco, M. Sánchez, J. M. M. Senovilla TITLE: Structure of second-order symmetric Lorentzian manifolds JOURNAL/BOOK: Journal of the European Mathematical Society Volume: 15 First Page: 595 Last Page: 634 Year: 2013 Country: CH</p>
<p>AUTHORS: J. M. M. Senovilla TITLE: Umbilical-type surfaces in spacetime JOURNAL/BOOK: Recent Trends in Lorentzian Geometry (Springer Proc. in Mathematics) Volume: 26 First Page: 87 Last Page: 110 Year: 2013 City: New York Country: USA ISBN: 978-1-4614-4896-9 DOI: DOI 10.1007/978-1-4614-4897-6</p>
<p>AUTHORS: J. M. M. Senovilla TITLE: Trapped surfaces JOURNAL/BOOK: Black Holes: New Horizons Volume: World Scientific First Page: 203 Last Page: 234 Year: 2013 Country: SIN ISBN: 978-981-4425-69-8 DOI: DOI</p>
<p>AUTHORS: A. García-Parrado, J. M. M. Senovilla TITLE: A set of invariant quality factors measuring the deviation from the Kerr metric JOURNAL/BOOK: General Relativity and Gravitation Volume: 45 First Page: 1095 Last Page: 1127 Year: 2013 Country: GER</p>
<p>AUTHORS: I. Bengtsson, E. Jakobsson, J. M. M. Senovilla TITLE: Trapped surfaces in the Oppenheimer-Snyder black holes JOURNAL/BOOK: Physical Review D Volume: 88 First Page: 064012-1 Last Page: 064012-16 Year: 2013 Country: USA</p>
<p>AUTHORS: J. M. M. Senovilla TITLE: Junction conditions for $F(R)$ gravity and their consequences JOURNAL/BOOK: Physical Review D Volume: 88 First Page: 064015-1 Last Page: 064015-11 Year: 2013 Country: USA</p>
<p>AUTHORS: J. M. M. Senovilla TITLE: Gravitational double layers JOURNAL/BOOK: Classical and Quantum Gravity Volume: 31 First Page: 072002-1 Last Page: 072002-8 Year: 2014 Country: UK</p>
<p>AUTHORS: J. M. M. Senovilla TITLE: Black hole formation by incoming electromagnetic radiation JOURNAL/BOOK: Classical and Quantum Gravity Volume: 32 First Page: 017001-1 Last Page: 017001-7 Year: 2015 Country:</p>
<p>AUTHORS: J. M. M. Senovilla, R. Torres TITLE: Particle production from marginally trapped surfaces of general spacetimes JOURNAL/BOOK: Classical and Quantum Gravity Volume: 32 First Page: 085004-1 Last Page: 085004-18 Year: 2015 Country: UK</p>
<p>AUTHORS: J. M. M. Senovilla, D. Garfinkle TITLE: The 1965 Penrose singularity theorem JOURNAL/BOOK: Classical and Quantum Gravity Volume: 32 First Page: 124008-1 Last Page: 124008-45 Year: 2015 Country: UK</p>
<p>AUTHORS: M. Mars, J. M. M. Senovilla TITLE: A spacetime characterization of the Kerr-NUT-(A)de Sitter and related metrics JOURNAL/BOOK: Annales Henri Poincaré Volume: 16 First Page: 1509 Last Page: 1550 Year: 2015 Country: FRA</p>
<p>AUTHORS: B. Reina, J. M. M. Senovilla, R. Vera TITLE: Junction conditions in quadratic gravity: thin shells and double layers JOURNAL/BOOK: Classical and Quantum Gravity Volume: 33 First Page: 105008-1 Last Page: 105008-41 Year: 2016 Country: UK</p>
<p>AUTHORS: M. Mars, T.-T. Paetz, J. M. M. Senovilla, W. Simon TITLE: Characterization of (asymptotically) Kerr-de Sitter-like spacetimes at null infinity JOURNAL/BOOK: Classical and Quantum Gravity Volume: 33 First Page: 155001-1 Last Page: 155001-49 Year: 2016 Country: UK</p>
<p>AUTHORS: M. Mars, J. M. M. Senovilla TITLE: Spacetime characterizations of Λ-vacuum metrics with a null Killing 2-form JOURNAL/BOOK: Classical and Quantum Gravity Volume: 33 First Page: 195004-1 Last Page: 195004-26 Year: 2016 Country: UK</p>

AUTHORS: M. Mars, T.-T. Paetz, J. M. M. Senovilla
TITLE: Classification of Kerr-de Sitter-like space-times with conformally flat \mathcal{J}
JOURNAL/BOOK: Classical and Quantum Gravity
Volume: 34 First Page: 095010-1 Last Page: 095010-58 Year: 2017 Country: UK

AUTHORS: E.F. Eiroa, G. Figueroa Aguirre, J. M. M. Senovilla
TITLE: Pure double-layer bubbles in quadratic $F(R)$ gravity
JOURNAL/BOOK: Physical Review D
Volume: 95 First Page: 124021-1 Last Page: 124021-10 Year: 2017 Country: USA

AUTHORS: N. Cipriani, J. M. M. Senovilla, J. Van der Veken
TITLE: Umbilical properties of spacelike co-dimension two submanifolds
JOURNAL/BOOK: Results in Mathematics
Volume: 72 First Page: 25 Last Page: 46 Year: 2017 Country: GER

AUTHORS: M. Mars, T.-T. Paetz, J. M. M. Senovilla
TITLE: The limit of Kerr-de Sitter spacetime with infinite angular momentum parameter a
JOURNAL/BOOK: Physical Review D
Volume: 97 First Page: 024021-1 Last Page: 024021-14 Year: 2018 Country: USA

AUTHORS: T. Jacobson, J. M. M. Senovilla, A. J. Speranza
TITLE: Area deficits and the Bel-Robinson tensor
JOURNAL/BOOK: Classical and Quantum Gravity
Volume: 35 First Page: 085005-1 Last Page: 085005-26 Year: 2018 Country: UK

AUTHORS: M. Mars, T.-T. Paetz, J. M. M. Senovilla
TITLE: Multiple Killing horizons
JOURNAL/BOOK: Classical and Quantum Gravity
Volume: 35 First Page: 155015-1 Last Page: 155015-40 Year: 2018 Country: UK

AUTHORS: M. Mars, T.-T. Paetz, J. M. M. Senovilla
TITLE: Multiple Killing horizons and near horizon geometries
JOURNAL/BOOK: Classical and Quantum Gravity
Volume: 35 First Page: 245007-1 Last Page: 245007-27 Year: 2018 Country: UK

AUTHORS: J. M. M. Senovilla
TITLE: Equations for general shells
JOURNAL/BOOK: Journal of High Energy Physics
Volume: 11-2018 First Page: 134-1 Last Page: 134-33 Year: 2018 Country: GER

AUTHORS: N. Cipriani, J. M. M. Senovilla
TITLE: Singularity theorems for warped products and the stability of spatial extra dimensions
JOURNAL/BOOK: Journal of High Energy Physics
Volume: 04-2019 First Page: 175-1 Last Page: 175-24 Year: 2019 Country: GER

AUTHORS: M. Mars, T.-T. Paetz, J. M. M. Senovilla
TITLE: Multiple Killing horizons: the initial value formulation for Λ -vacuum
JOURNAL/BOOK: Classical and Quantum Gravity
Volume: 37 First Page: 025010-1 Last Page: 025010-43 Year: 2020 Country: UK

AUTHORS: F. Fernández-Álvarez, J. M. M. Senovilla
TITLE: A novel characterisation of gravitational radiation in asymptotically flat space-times
JOURNAL/BOOK: Physical Review D
Volume: 101 First Page: 024060-1 Last Page: 024060-7 Year: 2020 Country: USA

AUTHORS: F. Fernández-Álvarez, J. M. M. Senovilla
TITLE: Gravitational radiation condition at infinity with a positive cosmological constant
JOURNAL/BOOK: Physical Review D
Volume: 102 First Page: 101502(R)-1 Last Page: 101502(R)-8 Year: 2020 Country: USA

PUBLICATIONS
(Proceedings and General Communications)

-
- AUTHORS:** J. Martín, J. M. M. Senovilla
TITLE: Métricas de Kerr-Schild generalizadas: Soluciones interiores y radiación electromagnética.
ORGANIZER: Universidades de Valencia y Santander.
Volume: ERE 84 **First Page:** 97 **Last Page:** 118 **Year:** 1985 Valencia **Country:** ESP
-
- AUTHORS:** J. M. M. Senovilla
TITLE: La transformación de Kerr-Schild para fluidos perfectos.
ORGANIZER: Universitat de Barcelona y Societat Catalana de Física.
Volume: ERE 85 **First Page:** 97 **Last Page:** 109 **Year:** 1985 Barcelona **Country:** ESP
-
- AUTHORS:** C. de la Fuente, J. M. M. Senovilla
TITLE: Campo electromagnético de las ondas incidentes en el espacio-tiempo de Schwarzschild.
ORGANIZER: Instituto de Astrofísica de Canarias.
Volume: ERE 87 **First Page:** 231 **Last Page:** 243 **Year:** 1988 La Laguna **Country:** ESP
-
- AUTHORS:** F. J. Chinea, L. Fernández-Jambrina, J. M. M. Senovilla
TITLE: Absence of singularities in a cosmological perfect-fluid solution.
ORGANIZER: Universidad de Bilbao.
Volume: World Scientific **First Page:** 172 **Last Page:** 176 **Year:** 1992 London **Country:** GBR
-
- AUTHORS:** F. Fayos, X. Jaén, E. Llanta, J. M. M. Senovilla
TITLE: How to match the Vaidya radiating metric to any spherically symmetric spacetime.
ORGANIZER: Universidad de Bilbao.
Volume: World Scientific **First Page:** 160 **Last Page:** 165 **Year:** 1992 London **Country:** GBR
-
- AUTHORS:** M. Mars, J. M. M. Senovilla
TITLE: Axial symmetry and conformal Killings.
ORGANIZER: Universidad Complutense de Madrid. LECTURES NOTES IN PHYSICS.
Volume: Springer 423 **First Page:** 141 **Last Page:** 146 **Year:** 1993 **Country:** GER
-
- AUTHORS:** M. M. Martín-Prats, J. M. M. Senovilla
TITLE: Matching of stationary axisymmetric spacetimes.
ORGANIZER: Universidad Complutense de Madrid. LECTURES NOTES IN PHYSICS.
Volume: Springer 423 **First Page:** 136 **Last Page:** 140 **Year:** **Country:** GER
-
- AUTHORS:** M. Mars, J. M. M. Senovilla
TITLE: Perfect-fluid solutions with conformal Killing vector fields.
ORGANIZER: Universidad de Oviedo, Observatoire de Paris.
Volume: ERE 93 (Ed. Frontières) **First Page:** 303 **Last Page:** 307 **Year:** 1994 **Country:** FRA
-
- AUTHORS:** M. M. Martín-Prats, J. M. M. Senovilla
TITLE: Black holes without singularities.
ORGANIZER: Universidad de Oviedo, Observatoire de Paris.
Volume: ERE 93 (Ed. Frontières) **First Page:** 309 **Last Page:** 313 **Year:** 1994 **Country:** FRA
-
- AUTHORS:** J. M. M. Senovilla, C. F. Sopena
TITLE: New cosmologies of the Kerr-Schild type.
ORGANIZER: Universidad de Oviedo, Observatoire de Paris.
Volume: ERE 93 (Ed. Frontières) **First Page:** 391 **Last Page:** 395 **Year:** 1994 **Country:** FRA
-
- AUTHORS:** M. Mars, J. M. M. Senovilla
TITLE: Separable Cosmologies.
ORGANIZER: Universitat de Barcelona and Societat Catalana de Física.
Volume: World Scientific (ERE-94) **First Page:** 148 **Last Page:** 150 **Year:** 1995 **Country:** SIN
-
- AUTHORS:** J. M. M. Senovilla
TITLE: G_2 diagonal cosmologies without big-bang-like singularities.
ORGANIZER: Universitat de Barcelona and Societat Catalana de Física.
Volume: World Scientific (ERE-94) **First Page:** 151 **Last Page:** 155 **Year:** 1995 **Country:** SIN
-
- AUTHORS:** J. M. M. Senovilla, C. F. Sopena
TITLE: Perfect-fluid Kerr-Schild metrics.
ORGANIZER: Universitat de Barcelona and Societat Catalana de Física.
Volume: World Scientific (ERE-94) **First Page:** 156 **Last Page:** 158 **Year:** 1995 **Country:** SIN
-

AUTHORS: M. M. Martín-Prats, J. M. M. Senovilla
TITLE: New stationary perfect fluids with axial Killing vector.
ORGANIZER: Universitat de Barcelona and Societat Catalana de Física.
Volume: World Scientific First page: 227 Last page: 229 Year: 1995 Country: SIN

AUTHORS: J. M. M. Senovilla
TITLE: Cosmological Models without Initial Singularities
ORGANIZER: Universidad de Guanajuato, México
Volume: World Scientific First page: 42 Last page: 69 Year: 1996 Country: SIN

AUTHORS: J. M. M. Senovilla, R. Vera
TITLE: G_2 cosmological models non-separable in comoving coordinates.
ORGANIZER: Universitat de València
Volume: ERE 96 (Ed. Frontières) First page: 129 Last page: 132 Year: 1997 Country: FRA

AUTHORS: S. R. Hildebrandt, J. M. M. Senovilla
TITLE: About congruences of reference
ORGANIZER: Universitat de València
Volume: ERE 96 (Ed. Frontières) First page: 171 Last page: 174 Year: 1997 Country: FRA

AUTHORS: M. Á. G. Bonilla, J. M. M. Senovilla
TITLE: The dominant super-energy property for the Bel-Robinson tensor.
ORGANIZER: Universitat de València
Volume: ERE 96 (Ed. Frontières) First page: 175 Last page: 178 Year: 1996 Country: FRA

AUTHORS: F. Fayos, J. M. M. Senovilla, R. Torres
TITLE: Some reflexions on the matching of two spherically symmetric spacetimes.
ORGANIZER: Universitat de València
Volume: ERE 96 (Ed. Frontières) First page: 179 Last page: 186 Year: 1996 Country: FRA

AUTHORS: J. M. M. Senovilla
TITLE: On realistic non-singular cosmological models.
ORGANIZER: Inter-University Centre for Astronomy and Astrophysics (IUCAA).
Volume: Kluwer Acad. Pub. First page: 284 Last page: 288 Year: 1997 Country: NLD

AUTHORS: J. M. M. Senovilla, R. Vera
TITLE: Separable abelian G_2 diagonal cosmologies.
ORGANIZER: Instituto de Astrofísica de Canarias
Volume: World Scientific First page: 169 Last page: 173 Year: 1998 Country: SIN

AUTHORS: J. M. M. Senovilla
TITLE: An interesting property of semi-decomposable spacetimes.
ORGANIZER: Instituto de Astrofísica de Canarias
Volume: World Scientific First page: 174 Last page: 181 Year: 1998 Country: SIN

AUTHORS: M.Á. G. Bonilla, J. M. M. Senovilla
TITLE: The Bel-Robinson tensor and its square root.
ORGANIZER: Instituto de Astrofísica de Canarias
Volume: World Scientific First page: 245 Last page: 249 Year: 1998 Country: SIN

AUTHORS: M.Á.G. Bonilla, J. M. M. Senovilla
TITLE: Miscellaneous results on the Bel-Robinson tensor.
ORGANIZER: Universitat de les Illes Balears
Volume: ERE 97 First page: 14 Last page: 18 Year: 1998 Country: ESP

AUTHORS: S.R. Hildebrandt, J. M. M. Senovilla
TITLE: Generalized symmetries.
ORGANIZER: Universitat de les Illes Balears
Volume: ERE 97 First page: 27 Last page: 30 Year: 1998 Country: ESP

AUTHORS: J. M. M. Senovilla
TITLE: RelARTivity.
ORGANIZER: Universitat de les Illes Balears
Volume: ERE 97 First page: 211 Last page: 214 Year: 1998 Country: ESP

AUTHORS: J. M. M. Senovilla, R. Vera
TITLE: Dust G_2 Cosmological Models.
ORGANIZER: Universitat de les Illes Balears
Volume: ERE 97 First page: 261 Last page: 265 Year: 1998 Country: ESP

AUTHORS: J. M. M. Senovilla
TITLE: Remarks on superenergy tensors (gr-qc/9901019)
ORGANIZER: Universidad de Salamanca
Volume: World Scientific (ERE-98) **First page:** 175 **Last page:** 182 **Year:** 1999 **Country:** SIN

AUTHORS: J. M. M. Senovilla, R. Vera
TITLE: Segre decomposition of spacetimes
ORGANIZER: Universidad de Salamanca
Volume: World Scientific (ERE-98) **First page:** 333 **Last page:** 336 **Year:** 1999 **Country:** SIN

AUTHORS: J. M. M. Senovilla
TITLE: Applications of Super-Energy tensors (gr-qc/9912050)
ORGANIZER: Universidad del País Vasco
Volume: ERE-99 **First page:** 139 **Last page:** 148 **Year:** 2000 **Country:** ESP

AUTHORS: J. Carot, J. M. M. Senovilla, R. Vera
TITLE: On the definition of cylindrical symmetry
ORGANIZER: Universidad del País Vasco
Volume: ERE-99 **First page:** 185 **Last page:** 190 **Year:** 2000 **Country:** ESP

AUTHORS: R. Lazkoz, J. M. M. Senovilla, R. Vera
TITLE: Properties of Bel Currents (gr-qc/0104091)
ORGANIZER: Universidad de Valladolid
Volume: World Scientific (ERE-00) **First page:** 185 **Last page:** 190 **Year:** 2001 **Country:** SIN

AUTHORS: J. M. M. Senovilla
TITLE: General Electric-Magnetic decomposition of fields, positivity and Rainich-like conditions (gr-qc/0010095)
ORGANIZER: Universidad de Valladolid
Volume: World Scientific (ERE-00) **First page:** 145 **Last page:** 164 **Year:** 2001 **Country:** SIN

AUTHORS: F. Fayos, J. M. M. Senovilla, R. Torres
TITLE: Constructing models for stars and voids in the Universe: a comprehensive approach
ORGANIZER: Universidad de Valladolid
Volume: World Scientific (ERE-00) **First page:** 285 **Last page:** 292 **Year:** 2001 **Country:** SIN

AUTHORS: R. Lazkoz, J. M. M. Senovilla, R. Vera
TITLE: General Properties of Bel Currents
ORGANIZER: Università di Roma “La Sapienza”, the 9th Marcel Grossmann Meeting
Volume: World Scientific **First page:** 1973 **Last page:** 1975 **Year:** 2002 **Country:** SIN

AUTHORS: J. M. M. Senovilla
TITLE: Causal tensors and Rainich’s conditions
ORGANIZER: Dublin University
Volume: Int. J. Mod. Phys. A (World Scientific) **17** **First page:** 2775 **Last page:** 2775 **Year:** 2002 **Country:** SIN

AUTHORS: J. M. M. Senovilla
TITLE: Cosmological singularities
ORGANIZER: Università di Roma “La Sapienza”, the 9th Marcel Grossmann Meeting
Volume: World Scientific **First page:** 1986 **Last page:** 1987 **Year:** 2002 **Country:** SIN

AUTHORS: G. Bergqvist, J. M. M. Senovilla
TITLE: Structure of Conformal Lorentz Transformations
ORGANIZER: Universidades Politécnica y Complutense de Madrid. LECTURES NOTES IN PHYSICS.
Volume: Springer LNP 617 **First page:** 245 **Last page:** 251 **Year:** 2003 **Country:** GER

AUTHORS: A. García-Parrado, J. M. M. Senovilla
TITLE: Causal Transformations
ORGANIZER: Universidades Politécnica y Complutense de Madrid. LECTURES NOTES IN PHYSICS.
Volume: Springer LNP 617 **First page:** 315 **Last page:** 329 **Year:** 2003 **Country:** GER

AUTHORS: A. García-Parrado, J. M. M. Senovilla
TITLE: Causal symmetries
ORGANIZER: Universitat de Barcelona and Societat Catalana de Física.
Volume: ERE-02 **First page:** 293 **Last page:** 297 **Year:** 2003 **Country:** ESP

AUTHORS: J. M. M. Senovilla
TITLE: Novel results on trapped surfaces
ORGANIZER: S. Banach Mathematical Centre, Polish Academy of Sciences
Volume: <http://www.impan.gov.pl/Gravitation/ConfProc/index.html> (only in electronic form)
Year: 2003 **Country:** POL

AUTHORS: J. M. M. Senovilla
TITLE: New conservation laws for electromagnetic fields in gravity
ORGANIZER: Universidad de Salamanca
Volume: “Symmetries in gravity and field theory”, Ediciones U. de Salamanca, Aquilafuente 62
First page: 265 **Last page:** 279 **Year:** 2004 **Country:** ESP

AUTHORS: J. M. M. Senovilla
TITLE: On trapped surfaces
ORGANIZER: Universidad de Alicante
Volume: ERE-03 **First page:** 107 **Last page:** 112 **Year:** 2004 **Country:** ESP

AUTHORS: J. M. M. Senovilla
TITLE: Trapped submanifolds in Lorentzian geometry (math.DG/0412256)
ORGANIZER: Universidad de Murcia (XIII Fall Workshop on Geommetry and Physics)
Volume: Pub. R. Soc. Matemática Española, vol.9 **First page:** 175 **Last page:** 180 **Year:** 2005 **Country:** ESP

AUTHORS: S.B. Edgar, J. M. M. Senovilla
TITLE: A weighted de Rham operator leading to local potentials for Riemann and Weyl tensors
ORGANIZER: Universidad de Oviedo (Spanish Relativity Meeting 2005)
Volume: AIP Conference Proc. 841 **First page:** 291 **Last page:** 297 **Year:** 2006 **Country:** USA

AUTHORS: J. M. M. Senovilla
TITLE: Second-Order Symmetric Lorentzian Manifolds
ORGANIZER: Universidad de Oviedo (Spanish Relativity Meeting 2005)
Volume: AIP Conference Proc. 841 **First page:** 370 **Last page:** 377 **Year:** 2006 **Country:** USA

AUTHORS: M. Mars, J. M. M. Senovilla, R. Vera
TITLE: Branes changing signature
ORGANIZER: Universitat de les Illes Balears (Spanish Relativity Meeting 2006)
Volume: J. Phys.: Conf. Ser. 66 **First page:** 012058 **Last page:** — **Year:** 2007 **Country:** UK

AUTHORS: J. M. M. Senovilla
TITLE: A new type of singularity theorem
ORGANIZER: Instituto de Astrofísica de Canarias
Volume: E.A.S. Publ. Series 30 **First page:** 101 **Last page:** 106 **Year:** 2008 **Country:** FRA

AUTHORS: S.B. Edgar, J. M. M. Senovilla
TITLE: The new potential for the Weyl tensor in n dimensions: Gauge and wave equation
ORGANIZER: Instituto de Astrofísica de Canarias
Volume: E.A.S. Publ. Series 30 **First page:** 245 **Last page:** 248 **Year:** 2008 **Country:** FRA

AUTHORS: M. Mars, J. M. M. Senovilla, R. Vera
TITLE: Accelerating expansion and change of signature
ORGANIZER: Instituto de Astrofísica de Canarias
Volume: E.A.S. Publ. Series 30 **First page:** 307 **Last page:** 310 **Year:** 2008 **Country:** FRA

AUTHORS: J. M. M. Senovilla
TITLE: On the boundary of the region containing trapped surfaces
ORGANIZER: Universidad de Salamanca (Spanish Relativity Meeting 2008)
Volume: AIP Conference Proc. 1122 **First page:** 72 **Last page:** 87 **Year:** 2009 **Country:** USA

AUTHORS: J. Aman, I. Bengtsson, J. M. M. Senovilla
TITLE: Where are the trapped surfaces?
ORGANIZER: Universidad del País Vasco/Euskal Herri Unibertsitatea (Spanish Relativity Meeting 2009)
Volume: J. Phys.: Conf. Series. 229 **First page:** 012004 **Last page:** — **Year:** 2010 **Country:** UK

AUTHORS: O.F. Blanco, M.Sánchez, J. M. M. Senovilla
TITLE: Complete classification of second-order symmetric spacetimes
ORGANIZER: Universidad del País Vasco/Euskal Herri Unibertsitatea (Spanish Relativity Meeting 2009)
Volume: J. Phys.: Conf. Series. 229 **First page:** 012021 **Last page:** — **Year:** 2010 **Country:** UK

AUTHORS: J. M. M. Senovilla
TITLE: Black holes and trapped surfaces
ORGANIZER: Universidad Autónoma Metropolitana, CINVESTAV, El Colegio Nacional (México)
Volume: AIP Conference Proc. 1318 **First page:** 123 **Last page:** 135 **Year:** 2010 **Country:** USA

AUTHORS: S. B. Edgar, J. M. M. Senovilla
TITLE: (Conformally) semisymmetric spaces and special semisymmetric Weyl tensors
ORGANIZER: Universidad de Granada (Spanish Relativity Meeting 2010)
Volume: J. Phys.: Conf. Series. 314 **First page:** 012019 **Last page:** — **Year:** 2011 **Country:** GBR

AUTHORS: O.F. Blanco, M. Sánchez, J. M. M. Senovilla

TITLE: Second-order symmetric Lorentzian manifolds II: structure and global properties

ORGANIZER: Universidad de Granada (Spanish Relativity Meeting 2010)

Volume: J. Phys.: Conf. Series. 314 **First page:** 012021 **Last page:** Year: 2011 **Country:** GBR

AUTHORS: G.J. Galloway, J. M. M. Senovilla

TITLE: Singularity theorems assuming trapped submanifolds of arbitrary dimension

ORGANIZER: Universidad de Granada (Spanish Relativity Meeting 2010)

Volume: J. Phys.: Conf. Series. 314 **First page:** 012092 **Last page:** Year: 2011 **Country:** GBR

AUTHORS: J. M. M. Senovilla

TITLE: Remarks on the stability operator for MOTS

ORGANIZER: Universidade do Minho (Spanish Relativity Meeting 2012)

Volume: Springer Proc. Math. Stat. 60 **First page:** 403 **Last page:** 407 **Year:** 2014 **Country:** GER

AUTHORS: J. M. M. Senovilla

TITLE: On the stability operator for MOTS and the 'Core' of black holes

ORGANIZER: Charles University, Prague (100 years after Einstein in Prague)

Volume: Springer Proc. Phys. 157 **First page:** 215 **Last page:** 222 **Year:** 2014 **Country:** CHE

AUTHORS: J. M. M. Senovilla

TITLE: Double layers in gravity theories

ORGANIZER: Universidad de Valencia

Volume: J. Phys.: Conf. Series. 600 **First page:** 012004-1 **Last page:** 012004-11 **Year:** 2015 **Country:** UK

AUTHORS: J. M. M. Senovilla

TITLE: Multiple Killing Horizons

ORGANIZER: Rikkyo University (Tokyo)

Volume: Proceedings of JGRG28 **First page:** 226 **Last page:** 296 **Year:** 2018 **Country:** JAP

OTHER PUBLICATIONS, ESSAYS, ETC.

-
- AUTHORS:** J. M. M. Senovilla
TITLE: Sancho Panza y el Big Bang.
JOURNAL: DIARIO EL PAIS. Suplemento “FUTURO” de Ciencia, Técnica e Informática.
Volume: Year II 29 **First page:** 10 **Last Page:** 10 **Year:** 1990 Barcelona **Country:** ESP
-
- AUTHORS:** J. M. M. Senovilla
TITLE: Didáctica del “big bang”.
JOURNAL: LA VANGUARDIA. Suplemento CIENCIA Y TECNOLOGÍA.
Volume: 43 **First page:** 3 **Last Page:** 4 **Year:** 1990 Barcelona **Country:** ESP
-
- AUTHORS:** J. M. M. Senovilla
TITLE: Diálogo sobre el infinito.
JOURNAL: LETRA INTERNACIONAL
Volume: 20 **First page:** 44 **Last Page:** 46 **Year:** 1991 **Country:** ESP
-
- AUTHORS:** J. M. M. Senovilla
TITLE: Reflexiones sobre el Big Bang.
JOURNAL: CUENTA Y RAZÓN del pensamiento actual.
Volume: 54 **First page:** 114 **Last Page:** 115 **Year:** 1991 Madrid **Country:** ESP
-
- AUTHORS:** J. M. M. Senovilla
TITLE: Big-Bang ¿dogma de la física moderna?
JOURNAL: EUROLICEO. JOURNAL de ciencias y tecnología.
Volume: 3 **First page:** 61 **Last Page:** 77 **Year:** 1991 Madrid **Country:** ESP
-
- AUTHORS:** J. M. M. Senovilla
TITLE: Breve historia del Universo.
JOURNAL: ABC. Los Análisis de ABC.
Volume: 10-5-92 **First page:** 9 **Last Page:** 9 **Year:** 1992 Madrid **Country:** ESP
-
- AUTHORS:** J. M. M. Senovilla
TITLE: El universo oscuro y la graviceguera humana.
JOURNAL: Tercer Milenio. Suplemento de ciencia y tecnología de El Heraldo de Aragón
Volume: 233 **First page:** 4 **Last Page:** 5 **Year:** 2000 **Country:** ESP
-
- AUTHORS:** J. M. M. Senovilla
TITLE: Museos en expansión.
JOURNAL: Libro de prestigio inaugurativo del Museo de la Ciencia de la “Fundació la Caixa” en Madrid.
Volume: **First page:** **Last Page:** **Year:** 2001 **Country:** ESP
-
- AUTHORS:** J. M. M. Senovilla
TITLE: Einstein, precursor de la Cosmología.
JOURNAL: Revista de Física (of the Catalan Physics Society)
Volume: Special number **First page:** 38 **Last Page:** 45 **Year:** 2005 **Country:** ESP
-
- AUTHORS:** J. M. M. Senovilla
TITLE: La Cosmología y los matemáticos
JOURNAL: La Gaceta de la R. Soc. Matemática Española
Volume: 8, Number 3 **First page:** 53 **Last Page:** 93 **Year:** 2005 **Country:** ESP
-
- AUTHORS:** J. M. M. Senovilla
TITLE: Teoremas de singularidades en Relatividad General
JOURNAL: Mathematics and Statistics Faculty of the Universitat Politècnica de Catalunya: Einstein Course
Volume: II **First page:** 255 **Last Page:** 278 **Year:** 2006 **Country:** ESP
-
- AUTHORS:** J. M. M. Senovilla
TITLE: Geometría en la Relatividad General
BOOK: Un paseo por la Geometría 2009/2010 (Mathematics Department, UPV/EHU)
Volume: **First page:** 59 **Last Page:** 79 **Year:** 2010 **Country:** ESP
-
- AUTHORS:** J. M. M. Senovilla
TITLE: ¿Qué es la relatividad general?
JOURNAL: El Cultural
Volume: 6–12 Nov. **First page:** 44 **Last Page:** 45 **Year:** 2015 **Country:** ESP
-
- AUTHORS:** J. M. M. Senovilla
TITLE: Cien años de mocedad
JOURNAL: Revista de Física
Volume: 29 (Número 4) **First page:** 2 **Last Page:** 3 **Year:** 2015 **Country:** ESP
-

AUTHORS: J. M. M. Senovilla

TITLE: Género, ciencia y periodismo

JOURNAL: Cuadernos de la Fundació Antoni Esteve: La visibilidad de las científicas españolas

Volume: 44 **First page:** 54 **Last Page:** 55 **Year:** 2018 **Country:** ESP

AUTHORS: N. Cipriani, J. M. M. Senovilla

TITLE: Análisis de los fenómenos que contribuyen a perpetuar, o modificar, la discriminación de las mujeres en los campos de las matemáticas y la física

JOURNAL: Publicaciones de Emakunde

https://www.euskadi.eus/contenidos/informacion/publicaciones_bekak/es_def/adjuntos/beca.2018.1.discriminacion_matematicas_fisica.pdf

Volume: **First page:** **Last Page:** **Year:** 2019 **Country:** ESP

AUTHORS: N. Cipriani, J. M. M. Senovilla

TITLE: La discriminación de las mujeres en la ciencia: discriminación individual, estructural y simbólica

JOURNAL: Online

https://www.researchgate.net/publication/342178477_La_discriminacion_de_las_mujeres_en_la_ciencia_discriminacion_individual_estructural_y_simbolica

Volume: **First page:** **Last Page:** **Year:** 2020 **Country:**

AUTHORS: J. M. M. Senovilla

TITLE: Hoyos negros y sus misteriosos interiores

JOURNAL: Revista de Física

Volume: 34 (Número 4) **First page:** **Last Page:** **Year:** 2020 **Country:** ESP

SUPERVISED PH. D. THESIS

TITLE: Geometric properties of hypersurfaces and axial symmetry with applications to G_2 perfect-fluid solutions.		
STUDENT: Marc Mars		
UNIVERSITY: Barcelona	FACULTY: Física	YEAR: 1995
MARK: Apto <i>cum laude</i> por unanimidad		
TITLE: Axially symmetric models for stellar and cosmological structures: black holes, voids, etc.		
STUDENT: Maria Mercè Martín Prats		
UNIVERSITY: Barcelona	FACULTY: Física	YEAR: 1995
MARK: Apto <i>cum laude</i> por unanimidad		
TITLE: Applications of timelike and null congruences to the construction of cosmological and astrophysical models.		
STUDENT: Carlos Fernández Sopena		
UNIVERSITY: Barcelona	FACULTY: Física	YEAR: 1996
MARK: Apto <i>cum laude</i> por unanimidad		
TITLE: Theoretical aspects concerning separability, matching and matter contents of inhomogeneities in Cosmology.		
STUDENT: Raül Vera		
UNIVERSITY: Barcelona	FACULTY: Física	YEAR: 1998
MARK: Sobresaliente <i>cum laude</i> por unanimidad		
TITLE: Kerr-Schild and generalized metric groups, with some applications to regularized black holes. in Cosmology.		
STUDENT: Sergi Ràfels Hildebrandt		
UNIVERSITY: Barcelona	FACULTY: Física	YEAR: 2001
MARK: Sobresaliente <i>cum laude</i>		
TITLE: Causal relationship and its applications to Lorentzian geometry and spacetime symmetries		
STUDENT: Alfonso García-Parrado Gómez-Lobo		
UNIVERSITY: País Vasco (UPV/EHU)	FACULTY: Ciencia y Tec.	YEAR: 2004
MARK: Sobresaliente <i>cum laude</i> por unanimidad		
TITLE: Brinkmann and Lorentzian second-order symmetric spaces		
STUDENT: Oihane Fernández Blanco		
UNIVERSITY: Granada	FACULTY: Mathematics	YEAR: 2012
MARK: 95/100, Sobresaliente <i>cum laude</i> por unanimidad		
TITLE: Spacelike submanifolds, their umbilical properties and applications to gravitational physics		
STUDENT: Nastassja Cipriani		
UNIVERSITY: KU Leuven + UPV/EHU	FACULTY: Maths + Science and Tech.	YEAR: 2017
MARK: Sobresaliente <i>cum laude</i> por unanimidad		

SUPERVISED GRADUATE MASTER THESIS

TITLE: Ondas incidentes en un campo gravitatorio y campos electromagnéticos asociados.		
STUDENT: Carmen de la Fuente Blanco		
UNIVERSITY: Salamanca	FACULTY: Ciencias	YEAR: 1987
MARK: A Level (“Excelente”)		
TITLE: Sagitario A*. Observaciones y consecuencias.		
STUDENT: Ibon Enbeita Basterrechea		
UNIVERSITY: País Vasco	FACULTY: Engineers	YEAR: 2016
MARK: 5/10, Aprobado		
TITLE: An approach to fundamentals of a thermodynamic geometry: study in black hole thermodynamics		
STUDENT: Ernesto Mamedaliev		
UNIVERSITY: País Vasco	FACULTY: Science and Technology	YEAR: 2019
MARK: Aprobado		

VISITS TO RESEARCH INSTITUTIONS (longer than 4 weeks)

CENTRE: Queen Mary College, University of London. CITY: London COUNTRY: UK YEAR: 1987 DURATION: 2 years FUNDING: Spanish Ministry of Education and Science
CENTRE: Queen Mary and Westfield College. CITY: London COUNTRY: UK YEAR: 1999-2000 DURATION: 2 months FUNDING: Engineering and Physical Sciences Research Council (EPSRC)
CENTRE: Institut für Theoretische Physik, der Universität Wien. CITY: Vienna COUNTRY: Austria YEAR: 2000-01 DURATION: 3 months FUNDING: Spanish Ministry of Education and Science
CENTRE: Queen Mary, University of London CITY: London COUNTRY: UK YEAR: 2002 DURATION: 3 months FUNDING: Engineering and Physical Sciences Research Council (EPSRC)
CENTRE: Matematiska Institutionen, Linköping University CITY: Linköping COUNTRY: Sweden YEAR: 2004 DURATION: 4 and half months FUNDING: The Wenner-Gren Foundations
CENTRE: Queen Mary, University of London CITY: London COUNTRY: UK YEAR: 2006 DURATION: 1 month FUNDING: Spanish Ministry of Education and Science
CENTRE: Matematiska Institutionen, Linköping University CITY: Linköping COUNTRY: Sweden YEAR: 2006 DURATION: 1 and half months FUNDING: Swedish Research Council (Vetenskapsrådet or VR)
CENTRE: Matematiska Institutionen, Linköping University CITY: Linköping COUNTRY: Sweden YEAR: 2007 DURATION: 1 month FUNDING: Swedish Research Council (Vetenskapsrådet or VR)
CENTRE: Department of Geometry and Topology, Granada University CITY: Granada COUNTRY: Spain YEAR: 2007 DURATION: 4 weeks FUNDING: Host department
CENTRE: AlbaNova, Fysikum, Stockholm University CITY: Stockholm COUNTRY: Sweden YEAR: 2008 DURATION: 3 months FUNDING: The Wenner-Gren Foundations
CENTRE: Centre for Astrophysics, Shanghai Normal University CITY: Shanghai COUNTRY: China YEAR: 2013 DURATION: 3 months FUNDING: Host Institution
CENTRE: Universidad Nacional Autónoma de México y CINVESTAV CITY: México city COUNTRY: México YEAR: 2014 DURATION: 1 and half months FUNDING: Host Institutions
CENTRE: Rikkyo University, Yukawa Institute of theoretical physics, Kavli Institute for the physics and mathematics of the Universe, and other research institutions in Japan CITY: Tokyo, Kyoto, Osaka, Nagoya, Kashiwa COUNTRY: Japan YEAR: 2018 DURATION: 1 and half months FUNDING: Host Institutions
CENTRE: Mittag-Leffler Institute CITY: Strockholm COUNTRY: Sweden YEAR: 2019 DURATION: 1 month FUNDING: Host Institution

HONOURS, AWARDS AND GRANTS.

1991 Science and Technology Award “CITY OF BARCELONA”.
Due to the work on the non-singular inhomogeneous cosmological models.
Prize: 1 000 000 pesetas.

1999 Physics Award “EDUARD FONTSERÈ” of the “INSTITUT D’ESTUDIS CATALANS”.
To the work entitled *Singularitats en la teoria de la Relativitat General*.
Prize: 700 000 pesetas.

Grant of the Plan for the training of research staff. Spanish Government.
From January 1983 up to December 1986.
Universidad de Salamanca.

Special Grant of the Universidad de Salamanca.
January-March 1987.

British Council “Fleming” postdoc grant.
From October 1987 to October 1988.
Queen Mary College, London.

Reincorporation postdoc grant of the Spanish government.
From October 1988 to April 1990.
Universidad de Salamanca and Queen Mary College

Honorable mention in the 1999 Gravity Research Foundation Essay competition.
To the work entitled *(Super)ⁿ-Energy for Arbitrary Fields and its Interchange: Conserved Quantities*.

ACTIVITY AS REFEREE

JOURNAL: CLASSICAL AND QUANTUM GRAVITY.

DATES: Since 1988

JOURNAL: EUROPHYSICS LETTERS.

DATES: Since 1992

JOURNAL: PHYSICAL REVIEW D.

DATES: Since 1993

JOURNAL: INTERNATIONAL JOURNAL OF MODERN PHYSICS D.

DATES: Since 1993

JOURNAL: JOURNAL OF PHYSICS A: MATH. and GEN.

DATES: 1994

JOURNAL: PHYSICS LETTERS A.

DATES: Since 1996

JOURNAL: GENERAL RELATIVITY AND GRAVITATION.

DATES: Since 1996

JOURNAL: FOUNDATIONS OF PHYSICS.

DATES: 1999

JOURNAL: JOURNAL OF MATHEMATICAL PHYSICS.

DATES: Since 1999

JOURNAL: COMMUNICATIONS IN MATHEMATICAL PHYSICS.

DATES: Since 2003

JOURNAL: INTERNATIONAL JOURNAL OF MODERN PHYSICS A.

DATES: Since 2007

JOURNAL: JOURNAL OF GEOMETRY AND PHYSICS

DATES: Since 2008

JOURNAL: INDIAN JOURNAL OF MATHEMATICS/Bulletin of the Allahabad Mathematical Society (BAMS)

DATES: Since 2008

MEETINGS AND CONFERENCES

Including only relevant contributions (invited or plenary talks, presidency of organizing committee, etc.)

TYPE OF PARTICIPATION: Chosen communication CONFERENCE: 12th International Conference on General Relativity and Gravitation YEAR: 1989 PLACE: Boulder, Colorado	COUNTRY: USA
TYPE OF PARTICIPATION: Plenary talk (first) CONFERENCE: Gravitation and General Relativity YEAR: 1992 PLACE: El Escorial	COUNTRY: ESP
TYPE OF PARTICIPATION: Plenary talk (second) CONFERENCE: Gravitation and General Relativity YEAR: 1992 PLACE: El Escorial	COUNTRY: ESP
TYPE OF PARTICIPATION: Plenary talk CONFERENCE: Conversaciones de Madrid YEAR: 1992 PLACE: El Escorial	COUNTRY: ESP
TYPE OF PARTICIPATION: Invited talk CONFERENCE: Exact solutions and gravitational fields of rotating bodies in GR YEAR: 1993 PLACE: Tambach-Dietharz	COUNTRY: GER
TYPE OF PARTICIPATION: Co-president of the organizing committee CONFERENCE: Inhomogeneous Cosmological Models (Spanish Relativity Meeting 94) YEAR: 1994 PLACE: Maó, Menorca	COUNTRY: ESP
TYPE OF PARTICIPATION: Plenary course (four plenary talks) CONFERENCE: 1st Mexican School on Gravitation and Mathematical Physics YEAR: 1994 PLACE: Guanajuato	COUNTRY: MEX
TYPE OF PARTICIPATION: Chosen communication CONFERENCE: 14th International Conference on General Relativity and Gravitation YEAR: 1995 PLACE: Florence	COUNTRY: ITA
TYPE OF PARTICIPATION: Invited talk CONFERENCE: International Conference on Gravitation and Cosmology (ICGC-95) YEAR: 1995 PLACE: Pune	COUNTRY: IND
TYPE OF PARTICIPATION: Invited talk CONFERENCE: 19th Jena Seminar on Relativity YEAR: 1996 PLACE: Tambach-Dietharz	COUNTRY: GER
TYPE OF PARTICIPATION: Chosen communication (first) CONFERENCE: 15th International Conference on General Relativity and Gravitation YEAR: 1997 PLACE: Pune	COUNTRY: IND
TYPE OF PARTICIPATION: Chosen communication (second) CONFERENCE: 15th International Conference on General Relativity and Gravitation YEAR: 1997 PLACE: Pune	COUNTRY: IND
TYPE OF PARTICIPATION: Chosen communication (third) CONFERENCE: 15th International Conference on General Relativity and Gravitation YEAR: 1997 PLACE: Pune	COUNTRY: IND
TYPE OF PARTICIPATION: Chairman of afternoon session CONFERENCE: International Seminar on Mathematical Cosmology YEAR: 1998 PLACE: Potsdam	COUNTRY: GER
TYPE OF PARTICIPATION: Plenary talk CONFERENCE: 17th Workshop on Geometric Methods in Physics YEAR: 1998 PLACE: Bialowieza	COUNTRY: POL
TYPE OF PARTICIPATION: Invited talk CONFERENCE: Spanish Relativity Meeting (ERE-98) YEAR: 1998 PLACE: Salamanca	COUNTRY: ESP
TYPE OF PARTICIPATION: Invited talk CONFERENCE: Spanish Relativity Meeting (ERE-99) YEAR: 1999 PLACE: Bilbao	COUNTRY: ESP

TYPE OF PARTICIPATION: Invited talk CONFERENCE: Meeting of the Swedish Relativity Section YEAR: 1999 PLACE: Göteborg	COUNTRY: SWE
TYPE OF PARTICIPATION: Chosen communication CONFERENCE: 9th Marcel Grossmann Meeting YEAR: 2000 PLACE: Rome	COUNTRY: ITA
TYPE OF PARTICIPATION: Plenary talks (2) CONFERENCE: Reference frames and Gravitomagnetism (ERE-00) YEAR: 2000 PLACE: Valladolid	COUNTRY: ESP
TYPE OF PARTICIPATION: Invited talk CONFERENCE: Meeting in Honour of Prof. Bonnor's 80th birthday YEAR: 2000 PLACE: London	COUNTRY: GBR
TYPE OF PARTICIPATION: Chosen communication (first) CONFERENCE: 16th International Conference on General Relativity and Gravitation YEAR: 2001 PLACE: Durban	COUNTRY: SAA
TYPE OF PARTICIPATION: Chosen communication (second) CONFERENCE: 16th International Conference on General Relativity and Gravitation YEAR: 2001 PLACE: Durban	COUNTRY: SAA
TYPE OF PARTICIPATION: Chairman of a plenary session CONFERENCE: 16th International Conference on General Relativity and Gravitation YEAR: 2001 PLACE: Durban	COUNTRY: SAA
TYPE OF PARTICIPATION: Chairman of afternoon session CONFERENCE: Journées Relativistes 2001 YEAR: 2001 PLACE: Dublin	COUNTRY: IRE
TYPE OF PARTICIPATION: Plenary talk CONFERENCE: Geometría de Lorentz, Benalmádena 2001 YEAR: 2001 PLACE: Benalmádena, Málaga	COUNTRY: ESP
TYPE OF PARTICIPATION: Invited talk CONFERENCE: The Relativistic Universe: Setting up of the ICG at Portsmouth University YEAR: 2002 PLACE: Portsmouth	COUNTRY: GBR
TYPE OF PARTICIPATION: Invited talk CONFERENCE: Mathematics of Gravitation II YEAR: 2003 PLACE: Warsaw	COUNTRY: POL
TYPE OF PARTICIPATION: Chairman of morning session CONFERENCE: Mathematics of Gravitation II YEAR: 2003 PLACE: Warsaw	COUNTRY: POL
TYPE OF PARTICIPATION: Invited talk CONFERENCE: Spanish Relativity Meeting (ERE-03) YEAR: 2003 PLACE: Alicante	COUNTRY: ESP
TYPE OF PARTICIPATION: Chosen communication CONFERENCE: 17th International Conference on General Relativity and Gravitation YEAR: 2004 PLACE: Dublin	COUNTRY: IRE
TYPE OF PARTICIPATION: Invited talk CONFERENCE: Classical and Quantum Gravity Scientific Meeting (25th May 2006) YEAR: 2006 PLACE: London	COUNTRY: GBR
TYPE OF PARTICIPATION: Invited talk CONFERENCE: Meeting of the Swedish Relativity Society YEAR: 2006 PLACE: Linköping	COUNTRY: SWE
TYPE OF PARTICIPATION: Minicourse (3 hours) CONFERENCE: International Seminar on Applied Geometry in Andalusia (ICM-06 satellite) YEAR: 2006 PLACE: Granada	COUNTRY: ESP
TYPE OF PARTICIPATION: Plenary talk CONFERENCE: IV International Conference on Lorentzian Geometry YEAR: 2007 PLACE: Santiago de Compostela	COUNTRY: ESP

TYPE OF PARTICIPATION: Invited talk CONFERENCE: Meeting of the Swedish Relativity Society YEAR: 2007 PLACE: Linköping	COUNTRY: SWE
TYPE OF PARTICIPATION: Chair of workshop A1, “Exact Solutions and their Interpretation” CONFERENCE: 18 th International Conference on General Relativity and Gravitation YEAR: 2007 PLACE: Sydney	COUNTRY: AUS
TYPE OF PARTICIPATION: Invited talk CONFERENCE: Spanish Relativity Meeting (ERE-07) YEAR: 2007 PLACE: Tenerife	COUNTRY: ESP
TYPE OF PARTICIPATION: Invited talk CONFERENCE: Meeting of the Swedish Relativity Society YEAR: 2008 PLACE: Stockholm	COUNTRY: SWE
TYPE OF PARTICIPATION: Plenary talk CONFERENCE: Spanish Relativity Meeting (ERE-08) YEAR: 2008 PLACE: Salamanca	COUNTRY: ESP
TYPE OF PARTICIPATION: Plenary talk CONFERENCE: Mathematical Relativity in Lisbon YEAR: 2009 PLACE: Lisbon	COUNTRY: POR
TYPE OF PARTICIPATION: Chairman of the organizing committee CONFERENCE: Spanish Relativity Meeting (ERE-09) YEAR: 2009 PLACE: Bilbao	COUNTRY: ESP
TYPE OF PARTICIPATION: Chosen communication CONFERENCE: 19th International Conference on General Relativity and Gravitation YEAR: 2010 PLACE: Mexico DF	COUNTRY: MEX
TYPE OF PARTICIPATION: Plenary talk CONFERENCE: IVth Mexican Meeting on Mathematical and Experimental Physics YEAR: 2010 PLACE: Mexico DF	COUNTRY: MEX
TYPE OF PARTICIPATION: Invited course CONFERENCE: 2011 Shanghai Asia-Pacific School and Workshop on Gravitation YEAR: 2011 PLACE: Shanghai	COUNTRY: CHI
TYPE OF PARTICIPATION: Invited talk CONFERENCE: Meeting of the Swedish Relativity Society (in honour of Brian Edgar) YEAR: 2011 PLACE: Linköping	COUNTRY: SWE
TYPE OF PARTICIPATION: Chosen communication CONFERENCE: Relativity and Gravitation. 100 Years after Einstein in Prague YEAR: 2012 PLACE: Prague	COUNTRY: CZE
TYPE OF PARTICIPATION: Chairman of parallel session CONFERENCE: Relativity and Gravitation. 100 Years after Einstein in Prague YEAR: 2012 PLACE: Prague	COUNTRY: CZE
TYPE OF PARTICIPATION: Invited talk CONFERENCE: VIIth International Meeting on Lorentzian Geometry YEAR: 2013 PLACE: São Paulo	COUNTRY: BRA
TYPE OF PARTICIPATION: Invited special session CONFERENCE: VIIth International Meeting on Lorentzian Geometry YEAR: 2013 PLACE: São Paulo	COUNTRY: BRA
TYPE OF PARTICIPATION: Invited talk CONFERENCE: The 1st Conference of Polish Society on Relativity YEAR: 2014 PLACE: Spala	COUNTRY: POL
TYPE OF PARTICIPATION: Plenary talk CONFERENCE: Spanish Relativity Meeting (ERE-14) YEAR: 2014 PLACE: Valencia	COUNTRY: ESP
TYPE OF PARTICIPATION: Invited talk CONFERENCE: Meeting of the Swedish Relativity Society YEAR: 2014 PLACE: Stockholm	COUNTRY: SWE

TYPE OF PARTICIPATION: Invited talk CONFERENCE: Internartional Conference on matters of gravity and the Universe (Dadhich fest) YEAR: 2014 PLACE: New Delhi	COUNTRY: IND
TYPE OF PARTICIPATION: Invited talk for special session “Mathematical Relativity” CONFERENCE: AMS-EMS-SMP joint Meeting 2015 in Porto YEAR: 2015 PLACE: Porto	COUNTRY: POR
TYPE OF PARTICIPATION: Invited talk for special session “Geometric Analysis, Differential Geometry and Quantization” CONFERENCE: Second joint Conference of the Belgian, Royal Spanish and Luxembourg Mathematical Societies YEAR: 2016 PLACE: Logroño	COUNTRY: ESP
TYPE OF PARTICIPATION: Invited talk CONFERENCE: Conference on Singularities of general relativity and their quantum fate YEAR: 2016 PLACE: Warsaw	COUNTRY: POL
TYPE OF PARTICIPATION: Chosen communications (3) CONFERENCE: 21st International Conference on General Relativity and Gravitation YEAR: 2016 PLACE: New York	COUNTRY: USA
TYPE OF PARTICIPATION: Invited talk CONFERENCE: Meeting of the Swedish Relativity Society YEAR: 2017 PLACE: Stockholm	COUNTRY: SWE
TYPE OF PARTICIPATION: Plenary talk CONFERENCE: Pure and Applied Differential Geometry - PADGE 2017 YEAR: 2017 PLACE: Leuven	COUNTRY: BEL
TYPE OF PARTICIPATION: Invited talk CONFERENCE: II workshop on Singularities of general relativity and their quantum fate YEAR: 2018 PLACE: Warsaw	COUNTRY: POL
TYPE OF PARTICIPATION: Plenary talk CONFERENCE: The 28th workshop on general relativity and gravitation in Japan, JGRG28 YEAR: 2018 PLACE: Tokyo	COUNTRY: JAP
TYPE OF PARTICIPATION: Plenary talk CONFERENCE: Traveling through Pedro’s Universes: from spectroscopy to cosmology YEAR: 2018 PLACE: Madrid	COUNTRY: ESP
TYPE OF PARTICIPATION: Chairman of plenary session CONFERENCE: 22nd International Conference on General Relativity and Gravitation YEAR: 2019 PLACE: Valencia	COUNTRY: ESP
TYPE OF PARTICIPATION: Chosen communications (2) CONFERENCE: 22nd International Conference on General Relativity and Gravitation YEAR: 2019 PLACE: Valencia	COUNTRY: ESP
TYPE OF PARTICIPATION: Round table on “The future of gravittional physics” CONFERENCE: EREP2019 YEAR: 2019 PLACE: Valencia	COUNTRY: ESP
TYPE OF PARTICIPATION: Plenary Invited talk CONFERENCE: CANTATA FINALE (Cost action final meeting) YEAR: 2020 PLACE: Bilbao (and online)	COUNTRY: ESP

MEETINGS AND CONFERENCES

General

NAME: XIVth International Seminar on Theoretical Physics. Sant Feliú de Guixols, Spain.
TITLE: Relativistic Astrophysics and Cosmology.
YEAR: 1983
NAME: Journées Relativistes 84. Aussois, France.
YEAR: 1984
NAME: Journées Relativistes 01. Dublin, Ireland.
YEAR: 2001
NAME: Xth International Conference on General Relativity and Gravitation. Padova, Italy.
YEAR: 1983
NAME: XIth International Conference on General Relativity and Gravitation. Stockolm, Sweden.
YEAR: 1986
NAME: XIIth International Conference on General Relativity and Gravitation. Boulder, Colorado, USA.
YEAR: 1989
NAME: XIIIth International Conference on General Relativity and Gravitation. Córdoba, Argentina.
YEAR: 1992
NAME: XIVth International Conference on General Relativity and Gravitation. Florence, Italy.
YEAR: 1995
NAME: XVth International Conference on General Relativity and Gravitation. Pune, India.
YEAR: 1997
NAME: XVIth International Conference on General Relativity and Gravitation. Durban, South Africa.
YEAR: 2001
NAME: XVIIth International Conference on General Relativity and Gravitation. Dublin, Ireland.
YEAR: 2004
NAME: XVIIIth International Conference on General Relativity and Gravitation. Sidney, Australia.
YEAR: 2007
NAME: XIXth International Conference on General Relativity and Gravitation. Mexico DF, Mexico.
YEAR: 2010
NAME: XXist International Conference on General Relativity and Gravitation. New York, USA.
YEAR: 2016
NAME: XXIInd International Conference on General Relativity and Gravitation. Valencia, Spain.
YEAR: 2019
NAME: The 9th Marcel Grossmann Meeting, Rome, Italy.
YEAR: 2000
NAME: The 18th Jena Seminar on General Relativity. Tambach-Dietharz, Germany.
YEAR: 1993
NAME: The 19th Jena Seminar on General Relativity. Tambach-Dietharz, Germany.
YEAR: 1996
NAME: International Conference on Gravitation and Cosmology (ICGC-95). Pune, India.
YEAR: 1995
NAME: International Seminar on Mathematical Cosmology. Potsdam, Germany.
YEAR: 1998
NAME: Meeting of the Swedish Relativity Section. Göteborg, Sweden.
YEAR: 1999
NAME: Meeting of the Swedish Relativity Society. Linköping, Sweden.
YEAR: 2004
NAME: Meeting of the Swedish Relativity Society. Linköping, Sweden.
YEAR: 2006
NAME: Meeting of the Swedish Relativity Society. Linköping, Sweden.
YEAR: 2007
NAME: Meeting of the Swedish Relativity Society. Stockholm, Sweden.
YEAR: 2008
NAME: Meeting of the Swedish Relativity Society. Linköping, Sweden.
YEAR: 2011
NAME: Meeting of the Swedish Relativity Society. Stockholm, Sweden.
YEAR: 2014

NAME: Meeting of the Swedish Relativity Society. Stockholm, Sweden. YEAR: 2017
NAME: Meeting in Honour of Bonnor's 80th birthday. London, U.K. YEAR: 2000
NAME: The Early Universe and Cosmological Observations workshop. Cape Town, Southafrica. YEAR: 2001
NAME: II Britgrav. Londres 2002. YEAR: 2002
NAME: IV Britgrav. Oxfordshire 2004. YEAR: 2004
NAME: X Britgrav. Dublin 2010. YEAR: 2010
NAME: The Relativistic Universe: Launch of the ICG at Portsmouth, Portsmouth, U.K. YEAR: 2002
NAME: Simetrías y gravedad en teoría de campos. Meeting in honour of Prof. Azcárraga. Salamanca 2003 YEAR: 2003
NAME: Mathematics of Gravitation II, Warsaw, Poland YEAR: 2003
NAME: Encuentros Relativistas Españoles 83. Mallorca, Spain YEAR: 1983
NAME: Encuentros Relativistas Españoles 84. Santander, Spain YEAR: 1984
NAME: Encuentros Relativistas Españoles 85. Trobades Científiques de la Mediterrània. Maó, Menorca, Spain YEAR: 1985
NAME: Encuentros Relativistas Españoles 86. Valencia, Spain YEAR: 1986
NAME: Encuentros Relativistas Españoles 87. La Laguna, Tenerife, Spain YEAR: 1987
NAME: Encuentros Relativistas Españoles 88. Salamanca, Spain YEAR: 1988
NAME: Encuentros Relativistas Españoles 89. Barcelona, Spain YEAR: 1989
NAME: Encuentros Relativistas Españoles 90. Mallorca, Spain YEAR: 1990
NAME: Encuentros Relativistas Españoles 91. Bilbao, Spain YEAR: 1991
NAME: Encuentros Relativistas Españoles 92. El Escorial, Madrid, Spain YEAR: 1992
NAME: Encuentros Relativistas Españoles 93. Salas, Asturias, Spain YEAR: 1993
NAME: Encuentros Relativistas Españoles 94. Trobades Científiques de la Mediterrània. Maó, Menorca, Spain YEAR: 1994
NAME: Encuentros Relativistas Españoles 95. La Laguna, Tenerife, Spain YEAR: 1995
NAME: Encuentros Relativistas Españoles 96. Valencia, Spain YEAR: 1996
NAME: Encuentros Relativistas Españoles 97. Palma de Mallorca, Spain YEAR: 1997
NAME: Encuentros Relativistas Españoles 98. Salamanca, Spain YEAR: 1998
NAME: Encuentros Relativistas Españoles 99. Bilbao, Spain YEAR: 1999
NAME: Encuentros Relativistas Españoles 00. Valladolid, Spain YEAR: 2000
NAME: Encuentros Relativistas Españoles 01. Madrid, Spain YEAR: 2001
NAME: Encuentros Relativistas Españoles 02. Trobades Científiques de la Mediterrània. Maó, Menorca, Spain YEAR: 2002

NAME: Encuentros Relativistas Españoles 03. Alicante, Spain YEAR: 2003
NAME: Encuentros Relativistas Españoles 05. Oviedo, Spain YEAR: 2005
NAME: Encuentros Relativistas Españoles 07. Tenerife, Spain YEAR: 2007
NAME: Encuentros Relativistas Españoles 08. Salamanca, Spain YEAR: 2008
NAME: Encuentros Relativistas Españoles 09. Bilbao, Spain YEAR: 2009
NAME: Encuentros Relativistas Españoles 10. Granada, Spain YEAR: 2010
NAME: Encuentros Relativistas Españoles 11. Madrid, Spain YEAR: 2011
NAME: Encuentros Relativistas Españoles 12. Guimarães, Portugal YEAR: 2012
NAME: Encuentros Relativistas Españoles 14. Valencia, Spain YEAR: 2014
NAME: Encuentros Relativistas Españoles 15. Palma de Mallorca, Spain YEAR: 2015
NAME: Encuentros Relativistas Españoles-Portugueses. Lisbon, Portugal YEAR: 2016
NAME: Encuentros Relativistas Españoles-Portugueses. Málaga, Spain YEAR: 2017
NAME: Encuentros Relativistas Españoles-Portugueses. Palencia, Spain YEAR: 2018
NAME: Encuentros Relativistas Españoles-Portugueses. Valencia, Spain YEAR: 2019
NAME: Conversaciones de Madrid. Capital europea de la cultura 1992. Madrid, Spain YEAR: 1992
NAME: I Congreso de geometría de Lorentz. Benalmádena 2001, Spain YEAR: 2001
NAME: IV International Meeting on Lorentzian Geometry. Santiago de Compostela 2007, Spain YEAR: 2007
NAME: VI International Meeting on Lorentzian Geometry, GELOGRA. Granada 2011, Spain YEAR: 2011
NAME: VII International Meeting on Lorentzian Geometry, GeLoSP. São Paulo 2013, Brasil YEAR: 2013
NAME: VIII International Meeting on Lorentzian Geometry, GeLoMa. Málaga 2016, Spain YEAR: 2016
NAME: XIII Fall Workshop on Geometry and Physics. Murcia, Spain YEAR: 2004
NAME: XIV Fall Workshop on Geometry and Physics. Bilbao, Spain YEAR: 2005
NAME: Aftermath week of the XXIII Fall Workshop on Geometry and Physics. Granada, Spain YEAR: 2014
NAME: Seventh International Conference on the History of General Relativity HGR7. La Orotava, Spain YEAR: 2005
NAME: Classical and Quantum Gravity Scientific Meeting (25-05-06), London, UK YEAR: 2006
NAME: Classical and Quantum Gravity Scientific Meeting (22-05-08), London, UK YEAR: 2008
NAME: Classical and Quantum Gravity Scientific Meeting (04-06-09), London, UK YEAR: 2009
NAME: V Encuentro andaluz sobre Geometría Diferencial y sus Aplicaciones, Ronda (Málaga), Spain YEAR: 2007
NAME: X Encuentro andaluz sobre Geometría Diferencial y sus Aplicaciones, Jaén, Spain YEAR: 2012

NAME: XI Encuentro andaluz de Geometría, Sevilla, Spain
YEAR: 2015
NAME: Mathematical Relativity in Lisbon, Lisbon, Portugal
YEAR: 2009
NAME: IVth Mexican Meeting on Mathematical and Experimental Physics, Mexico DF, Mexico
YEAR: 2010
NAME: International Meeting on Differential Geometry, Córdoba 2010, Spain
YEAR: 2010
NAME: III Black Holes Workshop, Braga 2010, Portugal
YEAR: 2010
NAME: 2011 Shanghai Asia-Pacific School and Workshop on Gravitation, Shanghai 2011, China
YEAR: 2011
NAME: Relativity and Gravitation. 100 Years after Einstein in Prague, Czech Republic
YEAR: 2012
NAME: SIGRAV XX Conference, Osservatorio Astronomico di Capodimonte, Naples, Italy
YEAR: 2012
NAME: Workshop on Collapsing Objects, Fudan University. Shanghai, China
YEAR: 2013
NAME: 3rd Iberian Gravitational Wave Meeting, Valencia, Spain
YEAR: 2013
NAME: Workshop on Lorentzian Homogeneous Spaces, Madrid, Spain
YEAR: 2013
NAME: The 1st Conference of Polish Society on Relativity, Spała, Poland
YEAR: 2014
NAME: International Conference on matters of gravity and the Universe, New Delhi, India
YEAR: 2014
NAME: AMS-EMS-SMP joint meeting in Porto, Portugal
YEAR: 2015
NAME: Einstein's legacy. Celebrating 100 years of general relativity (Queen Mary, London, 28-29 Novembre 2015)
YEAR: 2015
NAME: A century of general relativity (Berlin, 30 Nov. al 2-Dec. 2015)
YEAR: 2015
NAME: Centenary Conference on the History of General Relativity (Berlin, 2-5 Dicembre 2015)
YEAR: 2015
NAME: International Conference Relativity and Geometry (in memoriam A. Lichnerowicz) (Paris, 14-16 Dicembre 2015)
YEAR: 2015
NAME: Conference on Singularities of general relativity and their quantum fate (Warsaw, 27 June -1 July 2016)
YEAR: 2016
NAME: second joint Conference of the Belgian, Royal Spanish and Luxembourg Mathematical Societies (Logroño, 6 - 8 June 2016)
YEAR: 2016
NAME: Pure and Applied Differential Geometry - PADGE 2017 (Leuven, Belgium, 21 - 25 August 2017)
YEAR: 2017
NAME: The 28th workshop on general relativity and gravitation in Japan, JGRG28 (Tokyo, Japan, 5 - 9 November 2018)
YEAR: 2018
NAME: Iberian strings 2019 (Barcelona, Spain, 23 -25 January 2019)
YEAR: 2019

RECENT SHORT VISITS TO RESERACH CENTRES

CENTRE: <i>Queen Mary and Westfield College</i> (London, 15-25 July 94). YEAR: 1994
CENTRE: <i>Universidad Nacional Autónoma de México</i> (México, 2-12 December 94). YEAR: 1994
CENTRE: <i>Queen Mary and Westfield College</i> (London, 6-12 March 95). YEAR: 1995
CENTRE: <i>Inter-University Centre for Astronomy and Astrophysics</i> (Pune, India, 13-30 Dec. 95) YEAR: 1995
CENTRE: <i>Queen Mary and Westfield College</i> (London, 13-18 May 96). YEAR: 1996
CENTRE: <i>Universidad de Salamanca</i> (Salamanca, 7-20 April 97). YEAR: 1997
CENTRE: <i>Queen Mary and Westfield College</i> (London, 24-31 May 97). YEAR: 1997
CENTRE: <i>Universidad de Salamanca</i> (Salamanca, 12-25 April 98). YEAR: 1998
CENTRE: <i>Centre Nationale de La Recherche Scientifique</i> (Paris, 3-10 May 98). YEAR: 1998
CENTRE: <i>Institut für Theoretische Physik, Universität Wien</i> (Vienna, 13-20 February 99) YEAR: 1999
CENTRE: <i>Universidad de Salamanca</i> (Salamanca, 25-30 April 99) YEAR: 1999
CENTRE: <i>Queen Mary and Westfield College</i> (London, 8-15 May 99) YEAR: 1999
CENTRE: <i>Mälardalen University</i> (Västerås, 8-13 Novembre 99) YEAR: 1999
CENTRE: <i>Queen Mary and Westfield College</i> (London, 21 November 99 to 1 February 2000) YEAR: 1999-2000
CENTRE: <i>Universidad de Salamanca</i> (Salamanca, 16-21 October 00) YEAR: 2000
CENTRE: <i>Institut für Theoretische Physik, Universität Wien</i> (Vienna, 1 November 00 to 1 February 01) YEAR: 2000-01
CENTRE: <i>Queen Mary and Westfield College</i> (London, 4-11 June 01) YEAR: 2001
CENTRE: <i>Queen Mary, University of London</i> (London, 1 April 02 to 30 June 02) YEAR: 2002
CENTRE: <i>University of Linköping</i> (Linköping, 20-23 April 02) YEAR: 2002
CENTRE: <i>Universidad de Salamanca</i> (Salamanca, 27-31 January 03) YEAR: 2003
CENTRE: <i>Queen Mary, University of London</i> (London, 1-6 June 03) YEAR: 2003
CENTRE: <i>University of Stockholm</i> (Stockholm, 12 May 04) YEAR: 2004
CENTRE: <i>Universidad de Zaragoza</i> (Zaragoza, 18 February 05) YEAR: 2005
CENTRE: <i>Universidad de Salamanca</i> (Salamanca, 3-5 April 05) YEAR: 2005
CENTRE: <i>Dublin City University</i> (Dublin, 15-19 April 05) YEAR: 2005
CENTRE: <i>University of Linköping</i> (Linköping, 29 May - 4 June 05) YEAR: 2005
CENTRE: <i>Universidad de Salamanca</i> (Salamanca, 15-19 February 06) YEAR: 2006
CENTRE: <i>Universidad de Salamanca</i> (Salamanca, 11-14 March 07) YEAR: 2007

CENTRE: <i>University of Stockholm</i> (Stockholm, 9 May 07) YEAR: 2007
CENTRE: <i>Universidad de Granada</i> (Granada, 1 – 20 June 07) YEAR: 2007
CENTRE: <i>Universidad de Salamanca</i> (Salamanca, 4-8 February 08) YEAR: 2008
CENTRE: <i>Universitat de València</i> (Valencia, 24-28 February 08) YEAR: 2008
CENTRE: <i>University of Linköping</i> (Linköping, 5-6 May 08) YEAR: 2008
CENTRE: <i>Universidad de Granada</i> (Granada, 9 – 11 February 09) YEAR: 2009
CENTRE: <i>Universidad de Salamanca</i> (Salamanca, 9 – 12 March 09) YEAR: 2009
CENTRE: <i>Universidad de Murcia</i> (Murcia, 25 – 27 March 09) YEAR: 2009
CENTRE: <i>Queen Mary, University of London</i> (London, 2-3 June 09) YEAR: 2009
CENTRE: <i>University of Stockholm</i> (Stockholm, 8 – 22 May 09) YEAR: 2009
CENTRE: <i>University of Stockholm</i> (Stockholm, 1 – 15 May 10) YEAR: 2010
CENTRE: <i>Universidad de Granada</i> (Granada, 15-30 May 2010) YEAR: 2010
CENTRE: Departamento di Fisica ‘Galileo Galilei’, <i>Università di Padova</i> (Padova, 25-28 October 2010) YEAR: 2010
CENTRE: Centro de Matemática, <i>Universidade do Minho</i> (Braga, 15-24 December 2010) YEAR: 2010
CENTRE: <i>University of Southampton</i> (Southampton, 11 – 13 May 11) YEAR: 2011
CENTRE: <i>University of Stockholm</i> (Stockholm, 22 May – 4 June 2011) YEAR: 2011
CENTRE: <i>Universidad de Córdoba</i> (Córdoba, 12–16 May 2012) YEAR: 2012
CENTRE: <i>University of Stockholm</i> (Stockholm, 24 May – 2 June 2012) YEAR: 2012
CENTRE: <i>Universidad de Granada</i> (Granada, 11–15 Jun 2012) YEAR: 2012
CENTRE: <i>Universidad de Salamanca</i> (Salamanca, 25 –27 April 2013) YEAR: 2013
CENTRE: <i>University of Stockholm</i> (Stockholm, 15 – 27 May 2013) YEAR: 2013
CENTRE: <i>Wigner Institute</i> (Budapest, 23 – 28 June 2014) YEAR: 2014
CENTRE: <i>University of Vienna</i> (Vienna, 26 – 31 July 2014) YEAR: 2014
CENTRE: <i>University of Stockholm</i> (Stockholm, 27 September – 11 October 2014) YEAR: 2014
CENTRE: <i>Universidad San Francisco de Quito</i> (Quito, 2 – 15 November 2014) YEAR: 2014
CENTRE: <i>IEMath-Gr</i> (Granada, 15 – 21 June 2015) YEAR: 2015
CENTRE: <i>University of Vienna</i> (Vienna, 5 – 8 July 2015) YEAR: 2015
CENTRE: <i>University of Stockholm</i> (Stockholm, 26 September – 10 October 2015) YEAR: 2015
CENTRE: <i>IEMath-Gr</i> (Granada, 20 – 27 October 2015) YEAR: 2015

CENTRE: <i>KU Leuven</i> (Leuven, 17 – 25 November 2015) YEAR: 2015
CENTRE: <i>Higgs Center for theoretical physics</i> (Edinburgh, 19 – 20 May 2016) YEAR: 2016
CENTRE: <i>University of Stockholm</i> (Stockholm, 5 – 8 April 2017) YEAR: 2017
CENTRE: <i>Universidad de Murcia</i> (Murcia, 3 – 6 October 2017) YEAR: 2017
CENTRE: <i>KU Leuven</i> (Leuven, 12 – 16 October 2017) YEAR: 2017
CENTRE: <i>Universidad de Salamanca</i> (Salamanca, 6 – 8 December 2017) YEAR: 2017
CENTRE: <i>Universidad de Salamanca</i> (Salamanca, 16 – 19 January 2018) YEAR: 2018
CENTRE: <i>Queen Mary</i> (London, UK, 15 – 17 May 2018) YEAR: 2018
CENTRE: <i>Universidad de Salamanca</i> (Salamanca, 4 – 7 June 2018) YEAR: 2018
CENTRE: <i>Universität Wien</i> (Vienna, 12 – 16 June 2018) YEAR: 2018
CENTRE: <i>Rikkyo University</i> (Tokyo, Japan, 15 october – 9 november 2018 (except next)) YEAR: 2018
CENTRE: <i>Wasda University</i> (Tokyo, Japan, 26 October 2018) YEAR: 2018
CENTRE: <i>Yukawa Institute of theoretical physics</i> (Kyoto, Japan, 28 October –1 November 2018) YEAR: 2018
CENTRE: <i>Osaka City University</i> (Osaka, Japan, 2 November 2018) YEAR: 2018
CENTRE: <i>Nagoya University</i> (Nagoya, Japan, 11 – 13 November 2018) YEAR: 2018
CENTRE: <i>Kavli Institute for the physics and mathematics of the Universe</i> (Kashiwa, Japan, 14 – 16 November 2018) YEAR: 2018
CENTRE: <i>Charles University</i> (Prague, Check Republic, 30 May – 1 June 2019) YEAR: 2019
CENTRE: <i>Max Planck Institute for Gravitation (AEI)</i> (Golm, Berlin, Germany, 2 – 6 June 2019) YEAR: 2019
CENTRE: <i>IEMath-Gr</i> (Granada, 4 – 16 November, 2019) YEAR: 2019

PUBLIC TALKS

TITLE: El origen del Universo y los teoremas de singularidades. TOWN: Salamanca COUNTRY: ESP EVENT: Conferences for undergraduate students.	YEAR: 1990
TITLE: Big-bang, ¿dogma de la física moderna? TOWN: Madrid COUNTRY: ESP EVENT: Technociencia	YEAR: 1990
TITLE: Sobre el origen del Universo. TOWN: Palma de Mallorca COUNTRY: ESP EVENT: Conferences for undergraduate students.	YEAR: 1991
TITLE: El Universo. TOWN: Cartagena COUNTRY: ESP EVENT: Conferences in High School.	YEAR: 1991
TITLE: Acerca del origen del Universo. TOWN: Barcelona COUNTRY: ESP EVENT: Actualitat del Museu de la Ciència. Conferències.	YEAR: 1991
TITLE: Cosmología: Una ciencia del origen de todo. TOWN: El Escorial COUNTRY: ESP EVENT: Summer Course "Horizontes de la investigación científica contemporánea".	YEAR: 1991
TITLE: Cosmología: Una ciencia del origen del Universo. TOWN: Madrid COUNTRY: ESP EVENT: Fall activities at the Planetario de Madrid.	YEAR: 1991
TITLE: Cosmología. TOWN: Madrid COUNTRY: ESP EVENT: Conferences at the Colegio Mayor Chaminade	YEAR: 1991
TITLE: El Cosmos. TOWN: Barcelona COUNTRY: ESP EVENT: Els Cursos del Museu: "Idees claus per a la ciència". Museu de la Ciència.	YEAR: 1992
TITLE: ¿Es inevitable clásicamente la singularidad inicial del Universo? TOWN: El Escorial COUNTRY: ESP EVENT: Summer course "Tiempo y evolución del Universo".	YEAR: 1992
TITLE: El origen del Universo. TOWN: Zaragoza COUNTRY: ESP EVENT: Conferences at the Liceo Universitario, Universidad de Zaragoza.	YEAR: 1992
TITLE: El Big Bang. TOWN: Zaragoza COUNTRY: ESP EVENT: Conferences on science at the Institutos de Enseñanza Media.	YEAR: 1992
TITLE: Repaso histórico. TOWN: Barcelona COUNTRY: ESP EVENT: Science general course at METTA. Cosmology.	YEAR: 1992
TITLE: Principio del siglo XX. TOWN: Barcelona COUNTRY: ESP EVENT: Science general course at METTA. Cosmology.	YEAR: 1992
TITLE: Origen de l'Univers. TOWN: Barcelona COUNTRY: ESP EVENT: 1er cicle de conferències de la Societat Catalana de Física.	YEAR: 1993
TITLE: El periodo comprendido entre los Years 1920 y 1960. TOWN: Barcelona COUNTRY: ESP EVENT: Science general course at METTA. Cosmology.	YEAR: 1993
TITLE: La radiación de fondo. TOWN: Barcelona COUNTRY: ESP EVENT: Science general course at METTA. Cosmology.	YEAR: 1993
TITLE: Origen de l'Univers. TOWN: Lleida COUNTRY: ESP EVENT: Conferences at the Institut d'Estudis Ilerdencs.	YEAR: 1993

TITLE: Nociones de evolución estelar. TOWN: Barcelona COUNTRY: ESP EVENT: Science general course at METTA. Cosmology.	YEAR: 1993
TITLE: Desarrollos formales en la relatividad general. TOWN: Barcelona COUNTRY: ESP EVENT: Science general course at METTA. Cosmology.	YEAR: 1993
TITLE: Los modelos corrientes y sus problemas. TOWN: Barcelona COUNTRY: ESP EVENT: Science general course at METTA. Cosmology.	YEAR: 1993
TITLE: Perspectivas. TOWN: Barcelona COUNTRY: ESP EVENT: Science general course at METTA. Cosmology.	YEAR: 1993
TITLE: Cosmología. TOWN: Salas (Asturias) COUNTRY: ESP EVENT: Divulgative conferences at the ERE 93.	YEAR: 1993
TITLE: Sobre el origen del Universo. TOWN: Palma de Mallorca COUNTRY: ESP EVENT: The scientific tuesdays at the Fundació "la Caixa".	YEAR: 1993
TITLE: Buscando el origen del Universo. TOWN: Zaragoza COUNTRY: ESP EVENT: Primeras jornadas de divulgación cinetífica.	YEAR: 1993
TITLE: Què es pensa sobre l'origen de l'Univers? TOWN: Girona COUNTRY: ESP EVENT: Summer course "Perspectives de la física de final de segle".	YEAR: 1994
TITLE: El enigma de los agujeros negros. TOWN: Paniza (Zaragoza) COUNTRY: ESP EVENT: I Jornadas "Julio Palacios".	YEAR: 1994
TITLE: Cosmologia com a ciència. TOWN: Badalona (Barcelona) COUNTRY: ESP EVENT: Conferències de la Fundació Pere Vergès.	YEAR: 1995
TITLE: La teoría de la relatividad. TOWN: Zaragoza COUNTRY: ESP EVENT: Programa "Ciencia viva" en los Institutos de Enseñanza Media.	YEAR: 1995
TITLE: Tendencias en Cosmología. TOWN: Huesca COUNTRY: ESP EVENT: Primeras jornadas altoaragonesas de astronomía y astrofísica.	YEAR: 1995
TITLE: Relatividad General. TOWN: Zaragoza COUNTRY: ESP EVENT: Programa "Ciencia viva" en los Institutos de Enseñanza Media.	YEAR: 1998
TITLE: Relatividad Especial. TOWN: Zaragoza COUNTRY: ESP EVENT: Programa "Ciencia viva" en los Institutos de Enseñanza Media.	YEAR: 1998
TITLE: Relatividad Especial. TOWN: Teruel COUNTRY: ESP EVENT: Programa "Ciencia viva" en los Institutos de Enseñanza Media.	YEAR: 1998
TITLE: La Relativitat General i el naixement de la Cosmologia científica. TOWN: Barcelona COUNTRY: ESP EVENT: "Einstein a Barcelona". 75è aniversari de la visita d'Albert Einstein a Barcelona (1923).	YEAR: 1998
TITLE: Història de la Cosmologia i Astronomia TOWN: Barcelona COUNTRY: ESP EVENT: Col·loqui inaugural de l'Associació Astronòmica "Galileo"	YEAR: 1998
TITLE: Relatividad general TOWN: Barcelona COUNTRY: ESP EVENT: Conferències sobre la ciència a l'Aula Europa	YEAR: 2000
TITLE: Relatividad especial TOWN: Huesca COUNTRY: ESP EVENT: Programa "Ciencia viva" en los Institutos de Enseñanza Media	YEAR: 2000

TITLE: Singularitats a la Relativitat general	YEAR: 2001
TOWN: Barcelona COUNTRY: ESP	
EVENT: Conferències de l'associació d'estudiants de física (UAB)	
TITLE: Relatividad general	YEAR: 2005
TOWN: Zaragoza COUNTRY: ESP	
EVENT: Programa "Ciencia viva" en los Institutos de Enseñanza Media.	
TITLE: Relatividad especial	YEAR: 2005
TOWN: Calatayud COUNTRY: ESP	
EVENT: Programa "Ciencia viva" en los Institutos de Enseñanza Media.	
TITLE: Relatividad general	YEAR: 2005
TOWN: Málaga COUNTRY: ESP	
EVENT: Jornadas "Año Mundial de la Física 2005"	
TITLE: Principles of Equivalence	YEAR: 2005
TOWN: Barcelona COUNTRY: ESP	
EVENT: Day on "The Great Principles of Physics", CosmoCaixa	
TITLE: Teoremas de singularidades en Relatividad General	YEAR: 2005
TOWN: Barcelona COUNTRY: ESP	
EVENT: Closing of the "Einstein Course" at Universitat Politècnica de Catalunya	
TITLE: El lado oscuro del Universo	YEAR: 2006
TOWN: Bilbao COUNTRY: ESP	
EVENT: La ciencia en tu vida (Vth Week for Science and Technology)	
TITLE: La cara oculta del Universo (o su lado oscuro)	YEAR: 2008
TOWN: Salamanca COUNTRY: ESP	
EVENT: SEGRE Public Lecture 2008	
TITLE: La cara oculta del Universo (o su lado oscuro)	YEAR: 2009
TOWN: Murcia COUNTRY: ESP	
EVENT: Seminar for mathematics undergraduate students	
TITLE: La cara oculta del Universo	YEAR: 2009
TOWN: Granada COUNTRY: ESP	
EVENT: International year of Astronomy	
TITLE: Geometría en la Relatividad General	YEAR: 2010
TOWN: Leioa COUNTRY: ESP	
EVENT: A walk through Geometry, Maths Department, UPV/EHU	
TITLE: La cara oculta del Universo (o su lado oscuro)	YEAR: 2010
TOWN: Córdoba COUNTRY: ESP	
EVENT: An introduction to General Relativity from a mathematical viewpoint	
TITLE: Conferencia-Diálogo con Jorge Wagensberg	YEAR: 2011
TOWN: Bilbao COUNTRY: ESP	
EVENT: Scientific activities at La Alhóndiga in Bilbao	
TITLE: Historia de la medición del tiempo	YEAR: 2012
TOWN: Córdoba COUNTRY: ESP	
EVENT: Conferences for undergraduate students	
TITLE: El teatro cósmico: la farsa de la aceleración de la expansión. ¿Desaparecerá el tiempo?	YEAR: 2012
TOWN: Medellín (Badajoz) COUNTRY: ESP	
EVENT: IV Meeting on public scientific theatre	
TITLE: El Universo recién nacido	YEAR: 2014
TOWN: Bilbao COUNTRY: ESP	
EVENT: Zientziateka (Alhóndiga)	
TITLE: Principio de Equivalencia y Relatividad General	YEAR: 2014
TOWN: San Francisco de Quito COUNTRY: Ecuador	
EVENT: Coloquio del Colegio Politécnico de la USFQ	
TITLE: Principio de Equivalencia y Relatividad General	YEAR: 2014
TOWN: México city COUNTRY: Mexico	
EVENT: Coloquio del Instituto Politécnico Nacional at CINVESTAV	
TITLE: ¿Qué es la Relatividad General?	YEAR: 2015
TOWN: Madrid COUNTRY: ESP	
EVENT: Conference cycle on the GR Centenary at the Planetario de Madrid	

TITLE: Relativitat General: un segle d'aventures per l'espai-temps TOWN: Barcelona COUNTRY: ESP EVENT: Opening of the exhibition "Cent anys de relativitat general" at the library of the Physics Faculty, Barcelona University	YEAR: 2015
TITLE: Aniversario de una teoría centenaria: la Relatividad General TOWN: Murcia COUNTRY: ESP EVENT: Conference cycle "El legado cosmológico de Einstein. Cien años de relatividad general" at the culture classroom of CajaMurica	YEAR: 2015
TITLE: Relatividad General: Una hazaña portentosa TOWN: Leioa COUNTRY: ESP EVENT: Cultural wednesdays at the faculty of Science and Technology, University of the Basque Country	YEAR: 2015
TITLE: Relatividad General: Un siglo de peripecias prodigiosas TOWN: Salamanca COUNTRY: ESP EVENT: Conference cycle for students at the IUMyFF, Salamanca University	YEAR: 2016
TITLE: Relativitat General, Singularitats, Censor Còsmic, i tot això ... TOWN: Barcelona COUNTRY: ESP EVENT: Conference cycle of the Catalan Physical Society	YEAR: 2016
TITLE: Tiempo: ¿realidad inexorable o ilusión persistente? TOWN: Medellín COUNTRY: COL EVENT: The Book and Culture Festival in Medellín, Colombia	YEAR: 2016
TITLE: Ondas gravitacionales: el amanecer de una nueva era TOWN: Málaga COUNTRY: ESP EVENT: General interest talk in GELOMA 2016	YEAR: 2016
TITLE: Ondas gravitatorias: comienza una nueva era TOWN: Murcia COUNTRY: ESP EVENT: Seminar for mathematics undergraduate students	YEAR: 2017
TITLE: Ones gravitatòries: l'alba d'una nova era TOWN: Barcelona COUNTRY: ESP EVENT: Nobel prize conference at Institut d'Estudis Catalans, for the Catalan Physical Society	YEAR: 2018
TITLE: Ones gravitatòries TOWN: Barcelona COUNTRY: ESP EVENT: Conference for students of the Universitat Politècnica de Catalunya	YEAR: 2018
TITLE: Gravito-astronomía TOWN: Salamanca COUNTRY: ESP EVENT: Encuentros sobre Fronteras de la Ciencia: Tiempo de Física	YEAR: 2019
TITLE: Ones gravitatòries: una nova era TOWN: Barcelona COUNTRY: ESP EVENT: Conference for students of the Universitat Politècnica de Catalunya	YEAR: 2019
TITLE: Teoremas de singularidades. Nobel de Física 2020 TOWN: Bilbao (online) COUNTRY: ESP EVENT: SEGRE Conference on Nobel prize 2020	YEAR: 2020
TITLE: Geometría en el Nobel de Física 2020 TOWN: Bogotá COUNTRY: COL EVENT: Interacciones geometría diferencial y física matemática	YEAR: 2020
TITLE: Hoyos negros y singularidades TOWN: Zaragoza COUNTRY: ESP EVENT: Opening of CAPA series 2020	YEAR: 2020

OTHER RELEVANT MERITS

-
- 1** Editorial comment signed by John Maddox in the prestigious journal **NATURE**, about my paper *Phys. Rev. Lett.* **64** 2219 (1990).
REFERENCE: *Nature* **345**, 201 (1990).
-
- 2** Numerous research seminars at universities and research centres, both in Spain and abroad.
-
- 3** Elected member of the Committee of the International Society of General Relativity and Gravitation (see <http://www.maths.qmw.ac.uk/grgsoc/>), representing Spain, for the period 2001-2010.
-
- 4** Selection of the paper “Super-energy tensors” *Class. Quantum Grav.* **17** 2799-2842 (2000) as one of the “Highlight papers” in the period 2000-01. <http://www.iop.org/EJ/journal/-page=extra.high0001/CQG>.
-
- 5** Member of the Spanish Royal Mathematical Society, the Spanish Royal Society of Physics, the Spanish Society of Astronomy, the Spanish Society of Gravitation and Relativity, and of the Catalan Society of Physics.
-
- 6** Opponent for the Ph D degree examination in the Swedish system. Student: Anders Höglund. University of Linköping, 22 April 2002.
-
- 7** Selection of the paper “Causal relationship: a new tool for the causal characterization of Lorentzian manifolds” *Class. Quantum Grav.* **20** 625-664 (2003) as one of the “Highlight papers” in the period 2002-03. <http://www.iop.org/EJ/journal/-page=extra.high0203/CQG>.
-
- 8** The letter “A local potential for the Weyl tensor in all dimensions” *Class. Quantum Grav.* **21** L133-L137 (2004) was chosen as an ‘IOP Select’, that is, a service from Institute of Physics Journals comprising articles chosen by IOP Editors for their novelty, significance and potential impact on future research. <http://www.iop.org/Select/>.
-
- 9** Member of the Editorial Board of the Journal *Classical and Quantum Gravity*, 2005–2014 (10 years).
-
- 10** Selection of the Topical Review “Causal structures and causal boundaries” *Class. Quantum Grav.* **22** R1-R84 (2005) as one of the “Highlight papers” in the period 2004-05.
<http://www.iop.org/EJ/journal/-page=extra.high0405/CQG>.
-
- 11** Article in *New Scientist*, (week 22/29 Diciembre, 2007; p.8) on our paper (with Mars and Vera) “*Is the accelerated expansion evidence of a forthcoming change of signature on the brane?*” published in *Phys. Rev. D* **77** 027501 (2008)
-
- 12** Selection of the paper “Classification of spacelike surfaces in spacetime” *Class. Quantum Grav.* **24** 3091-3124 (2007) as one of the “Highlight papers” in the period 2007-08. <http://www.iop.org/EJ/journal/-page=extra.high0708/CQG>.
-
- 13** Selection of the paper “A set of invariant quality factors measuring the deviation from the Kerr metric” *Gen. Rel. Grav.* **45** 1095-1127 (2013) as an “Editor’s Choice”.
-
- 14** The Fast Track Communication “Gravitational double layers” *Class. Quantum Grav.* **31** (2014) 072002 was chosen as an ‘IOP Select’, that is, a service from Institute of Physics Journals comprising articles chosen by IOP Editors for their novelty, significance and potential impact on future research. <http://www.iop.org/Select/>.
-
- 15** Invited paper “The 1965 Penrose singularity theorem” for the focus issue *Milestones of General Relativity* of the journal *Classical and Quantum Gravity* on the occasion of the centenary of General Relativity (*Class. Quantum Grav.* **32** (2015) 124008)
-
- 16** External examiner of the Ph D Thesis entitled “Topological properties of the abstract boundary construction for general relativity and their application to space-time extensions” by Richard A. Barry, supervised by Prof. Susan Scott, at the Australian National University
-
- 17** Independent evaluator of the program “uni:docs” of the University of Vienna, to choose the best Ph D projects at that university (2015)
-
- 18** External evaluator of the research and professional activities of the Institutes of the Czech Academy of Sciences (CAS) (2015)
-
- 19** External evaluator of researchers for the National science system in South Africa (2015)
-
- 20** External evaluator of research projects for the National science system in Austria (2015)
-
- 21** Guest editor of the monograph issue in the Spanish journal of Physics (Revista de Física) on the centenary of General Relativity, volume 29, number 4, 2015
-
- 22** Member of the Advisory Board of the Journal *Classical and Quantum Gravity*, since 2015
-
- 23** Principal investigator (PI) of the consolidated Research Group “Gravitation and Cosmology” (Ref. IT956-16).
-
- 24** External examiner of the Ph D Thesis entitled “Algebraic Computing and Tensors in General Relativity” by Peter Huf, supervised by Prof. John Carminati, at the Deakin University (Australia)
-
- 25** External examiner of the Ph D Thesis entitled “Singularity theorems and rigidity in Lorentzian geometry” by Melanie Graf, supervised by Prof. Michael Kunzinger, at the University of Vienna (Austria)
-

26 Invited to the round table “La visibilidad de las científicas españolas” in the media, Fundació Antoni Esteve, 20-11-2017 (Madrid)

27 My paper “The 1965 Penrose singularity theorem”, *Class. Quantum Grav.* **32** (2015) 124008 was cited in, and used for, the “Scientific Background on the Nobel Prize in Physics 2020”, <https://www.nobelprize.org/uploads/2020/10/advanced-physicsprize2020.pdf>
