Part A. PERSONAL INFORMATION

CV date			01/07/2019
	Age	59	
Researcher ID	C-8602	-2009	

Name and Surname	Jose Maria Pitarke			
ID number	24404979R		Age	59
Researcher numbers		Researcher ID	C-8602	2-2009
		Orcid code		

A1. Current position

Name of Institution	CIC nanoGUNE				
Department					
Address	Tolosa I	Tolosa Hiribidea 76, 20018 Donostia - San Sebastian			
Phone number	943574002	E-mail	jm.pitarke@nanogune.eu		
Current position		Director	From	01/09/2006	
UNESCO code	221113, 221128				
Keywords	Condensed Matter Physics, Many-Body Physics, Nanotechnology				

A2. Education

	University	Year
Bachelor in Physics	University of the Basque Country	1982
Master in Physics	University of the Basque Country	1985
PhD in Physics	University of the Basque Country	1990

A3. General quality indicators of scientific production

Premio Extraordinario de Doctorado, academic year 1989-1990

Number of Sexenios de Investigación: 5 (the last one was awarded in 2016)

Number of ISI publications: 118

Number of citations: 4 007 (WoS) / 5 341 (Google Scholar) Average citations per year (in the period 2014-2018): 220

Average citations per item (of articles published in the period 2014-2018): 12.0

h-index: 32 (WoS) / 37 (Google Scholar)

Part B. CV SUMMARY

Prof. Pitarke studied Physics at the University of the Basque Country, where he received his PhD degree with distinction in 1990. During his PhD work, he investigated some aspects of tunneling spectroscopy and electron and photon emission in solids. After a postdoctoral stay at Oak Ridge National Laboratory (USA) in the group of Rufus Ritchie, he obtained in 1993 a tenured position at the University of the Basque Country (UPV/EHU). He combined his work at the UPV/EHU with sabbatical semesters at various USA Universities and the Imperial College of the University of London (UK). Since 2000, he has been full professor of condensed matter physics at the UPV/EHU. Since 2005, he has been By-Fellow of the Churchill College of the University of Cambridge. His research interests include condensed matter theory and many-electron dynamics in solids, surfaces, and nanostructures.

In February 2006, Prof. Pitarke was appointed Director-General of the Nanoscience Research Center nanoGUNE, at the time of its creation. He joined nanoGUNE in September 2006, without completely abandoning his duties at the University. Hardly a few months after the opening of nanoGUNE in January 2009, he received a special mention by the jury of the 9th Manuel Laborde Werlinden prize for his business initiative on graphene. He was the driving force of the start-up company Graphenea, which was founded in April 2010 as a joint venture of private investors and nanoGUNE with the mission of commercializing good-quality graphene wafers and developing graphene-based technologies. He was Vice-President of Graphenea until April 2015. Now he is President of another four spin-off companies of nanoGUNE. Since February 2013, he is also the President of the Elhuyar Foundation for the popularization of science and technology.



Part C. RELEVANT MERITS

C1. Publications (selection of 10 publications from the period 2009-2019)

- 1. L. A. Constantin, J. P. Perdew, and J. M. Pitarke, Phys. Rev. B **79**, 075126 (2009) Exchange-correlation hole of a generalized gradient approximation for solids and surfaces
- 2. C. M. Horowitz, L. A. Constantin, C. R. Proetto, and J. M. Pitarke, Phys. Rev. B 80, 235101 (2009)

Position-dependent exact-exchange energy for slabs and semi-infinite jellium

- 3. C. M. Horowitz, C. R. Proetto, and J. M. Pitarke, Phys. Rev. B **81**, 121106(R) (2010) Localized versus extended systems in density functional theory: some lessons from the Kohn-Sham exact exchange potential
- 4. L. A. Constantin and J. M. Pitarke, Phys. Rev. B **83**, 075116 (2011) Adiabatic-connection-fluctuation-dissipation approach to the long-range behavior of the exchange-correlation energy at metal surfaces
- 5. A. Ruzsinszky, J. P. Perdew, J. Tao, G. I. Csonka, and J. M. Pitarke, Phys. Rev. Lett. **109**, 233203 (2012)

van der Waals coefficients for nanostructures: Fullerenes defy conventional wisdom

6. M. Pisarra, A. Sindona, P. Riccardi, V. M. Silkin, and J. M. Pitarke, New J. Phys. 16, 083003 (2014)

Acoustic plasmons in extrinsic free-standing graphene

7. C. Vacacela-Gomez, M. Pisarra, M. Gravina, J. M. Pitarke, and A. Sindona, Phys. Rev. Lett. **117**, 116801 (2016)

Plasmon modes of grpahene nanoribbons with periodic planar arrangenemts

8. L. A. Constantin, E. Fabiano, J. M. Pitarke, and F. Della-Sala, Phys. Rev. B **93**, 115127 (2016)

Semilocal density functional theory with correct surface asymptotics

- 9. A. V. Terentjev, L. A. Constantin, and J. M. Pitarke, Phys. Rev. B **98**, 085123 (2018) *Gradient-dependent exchange-correlation kernel for materials optical properties*
- 10. A. V. Terentjev, L. A. Constantin, and J. M. Pitarke, Phys. Rev. B **98**, 214108 (2018) *Dispersion-corrected PBEsol exchange-correlation functional*



C2. Research projects/grants (selection of 7 projects/grants initiated in the period 2009-2019)

1. Project: KEEN Regions - Knowledge and Excellence in European Nanotechnology

(EU-FP7 Capacities - ref. 229514) Role: Local Principal Investigator

Total funding: 970 000 € for the period 01/06/2009 - 31/05/2011

Contribution to the local node (nanoGUNE): 103 641 €

2. Project: Excitaciones electrónicas y efectos de muchos cuerpos en sólidos, superficies y

nanoestructuras (MICINN - ref. FIS 2009-09631)

Role: Principal Investigator

Total funding: 43 560 € for the period 01/01/2010 - 31/12/2012

3. Project: Transpyrenees action on advanced infrastructures for nanosciences and nanotechnologies (EU-SUDOE Territorial Cooperation Programme - ref. SOE2/P1/E280)

Role: Local Principal Investigator

Total funding: 1 756 918 € for the period 01/01/2011 - 31/12/2012 Funding assigned to the local node (nanoGUNE): 149 953 €

4. Project: Thin-film hybrid Interfaces: a training initiative for the design of next-generation

energy devices (EU-FP7 Initial Training Network - ref. 607232)

Role: Local Principal Investigator

Total funding: 3 873 668 € for the period 01/09/2013 - 31/08/2017

Contribution the local node (nanoGUNE): 467 938 €

5. Project: Investigación colaborativa en valorización de residuos, frustración magnética,

nanoantenas de infrarrojos, electrohilado y nanofabricación

(Gobierno Vasco Elkartek - ref. KK-2015/00087)

Role: Principal Investigator

Total funding: 1 368 371 € for the period 01/01/2015 - 31/12/2015

Contribution to the local node (nanoGUNE): 1 270 331 €

6. Project: Novel industrial processes using the atomic layer deposition technique

(EU-H2020 Marie Sklodowska-Curie Action Individual Fellowship - ref. 746954)

Role: Supervisor

Total funding: 158 122 € for the period 01/04/2017 - 31/03/2019

7. Project: Investigación estratégica en nanociencia para la creación de prototipos

(Gobierno Vasco Elkartek - ref. KK-2019/00001)

Role: Principal Investigator

Total funding: 1 794 759 € for the period 01/01/2019 - 31/12/2020

Contribution to the local node (nanoGUNE): 1 237 500 €

C3. Entrepreneurship

1. Co-founder (in 2010) and Vice-President (2010-2015) of the start-up company Graphenea (www.graphenea.com)

2. President of the start-up companies Simune Atomistics (www.simuneatomistics.com), Ctech-nano (www.ctechnano.com), Evolgene Genomics (www.evolgene.com), and Prospero Biosciences (www.prospero-biosciences.com)



C4. Organizational roles at Conferences (selection of 5 Conferences from the period 2009-2019)

1. Conference: Atom by Atom into Nanoscience, San Sebastian (Spain)

Role: Chairman

Date: 28-30 September 2009

2. Conference: 24th International Conference of Atomic Collisions in Solids, Krakow (Poland)

Role: Member of the International Scientific Committee

Date: 18-23 July 2010

3. Conference: Electronic and optical properties of nanoscale materials, San Sebastian (Spain)

Role: Chairman Date: 4-7 July 2011

4. Conference: Surfaces and Interfaces, San Sebastian (Spain)

Role: Chairman

Date: 20-23 June 2017

5. Graphene Week 2018, San Sebastian (Spain)

Role: Chairman

Date: 23-27 September 2018

C5. Other services to the community

- 1. Teaching material: Author of 5 books and translator of 2 books, all on General Physics
- 2. Popularization of science: Author of more than 30 articles, several-times lecturer to the general audience, and President of the Elhuyar Foundation for the popularization of science
- 3. Committees: Member of committees for the examination of more than 20 PhD theses and the selection of more than 10 positions at various universities and research institutions, and coordinator (2006-2008) of a committee of experts of the supercomputer marenostrum
- 4. Referee: Referee for a variety of research journals and grant agencies in Spain, France, the Netherlands, and Chile
- 5. Representative of the University of the Basque Country in the European Network of doctorate programs "Physics and Chemistry of Advanced Materials" participated by 12 Universities

C6. Fellowships and Awards

- 1. Azkue research prize (1990)
- 2. By-Fellow of Churchill College of the University of Cambridge, since 2005
- 3. Special Mention of the Manuel Laborde Werliden prize (2009) for a business initiative (Graphenea) oriented to the synthesis and production of graphene