

Ministerio de Educación and Cultura
Secretaría de Estado de Universityes, Investigación and Desarrollo
Dirección General de Enseñanza Superior

Curriculum vitae

Number of Pages: 52

Name: Ignacio Pagonabarraga Mora

Date: January 20th 2014

Signature:

SURNAME: Pagonabarraga Mora

NAME: Ignacio

SEX: M

NIF 46.650.317-S

BIRTHDAY DATE AND PLACE 26/09/66, Barcelona.

NACIONALITY: Spanish.

PERSONAL ADDRESS: C. Escorial 180, 1o 1a Esc. Izq

CITY: Barcelona

POSTAL CODE: 08024

PHONE: 932198189

SPECIALITY (UNESCO CODE): 2212, 2213

ORGANISM: University of Barcelona

FACULTY, SCHOOL OR INSTITUTE: Physics Faculty

DEPT./SECC.: Department of Fundamental Physics

POSTAL ADDRESS: Carrer Martí i Franqués, 1

08028-Barcelona.

PHONE NUMBER: 934021157

FAX: 934021149

EMAIL ADDRESS: ipagonabarraga@ub.edu

PROFESSIONAL STATUS AND STARTING DATE: Full Professor, 01/02/2011

ACADEMIC STUDIES

<u>DEGREE</u>	<u>INSTITUTION</u>	<u>DATE</u>
Degree in Physics	University of Barcelona	30/06/89
<u>PhD</u>		
PhD in Physics (<i>Apto cum laude</i>) Thesis: <i>New mechanisms in the adsorption of colloidal suspensions</i>	University of Barcelona	24/06/95
SUPERVISOR: Miguel Rubí Capaceti		

PREVIOUS ACTIVITIES OF SCIENTIFIC CHARACTER

<u>DATES</u>	<u>POSITION</u>	<u>INSTITUTION</u>
01/01/90 – 31/08/93	FPI Grant	University of Barcelona
01/09/93 – 28/02/96	Teaching Contract	University of Barcelona
01/03/96 – 28/02/98	E.U. Marie Curie Grant Holder	Instituut AMOLF
01/03/98 – 09/01/99	FOM Contract	Instituut AMOLF
10/01/99 – 14/04/00	Research Fellow	University of Edinburgh
15/04/00 – 04/07/01	Reintegration Contract M.E.C.	University of Barcelona
05/07/01 – 01/02/2011	Associate Professor	University of Barcelona
01/02/2011 –	Full Professor	University of Barcelona

LANGUAGE OF SCIENTIFIC INTEREST (R = regular, B = average, C = proficient)

<u>LANGUAGE</u>	<u>SPEAK</u>	<u>READ</u>	<u>WRITE</u>
English	C	C	C
French	B	B	R

TEACHING EXPERIENCE

SUBJECT: Problems Mathematical Methods in Physics
INSTITUTION: Physics Faculty

INSTITUTION: University of Barcelona

YEAR:1993-1994

SUBJECT: Problems Mathematical Methods in Physics
INSTITUTION: Physics Faculty

INSTITUTION: University of Barcelona

YEAR:1994-1995

SUBJECT: Problems Mathematical Methods in Physics
INSTITUTION: Physics Faculty

INSTITUTION: University of Barcelona

YEAR:1995-1996

SUBJECT: Laboratory Quantum Physics
INSTITUTION: Physics Faculty

INSTITUTION: University of Barcelona

YEAR:1993-1995

SUBJECT: Problems Physics of Fluids
INSTITUTION: Physics Faculty

INSTITUTION: University of Barcelona

YEAR:1995-1996

SUBJECT: Problems General Physics for Biologists
INSTITUTION: Biology Faculty

INSTITUTION: University of Barcelona

YEAR:1993-1994

SUBJECT: General Physics for Biologists
INSTITUTION: Biology Faculty

INSTITUTION: University of Barcelona

YEAR:1994-1995

SUBJECT: Graduate Course: "Introduction to Polymer Physics and its Technology"
INSTITUTION: Chemical Engineering Faculty

INSTITUTION: University Rovira i Virgili

YEAR:1999-2000

SUBJECT: Problems Mathematical Methods in Physics I
INSTITUTION: Physics Faculty

INSTITUTION: University of Barcelona

YEAR:2001-2003

SUBJECT: Mathematical Methods in Physics I
INSTITUTION: Physics Faculty

INSTITUTION: University of Barcelona

YEAR:2001-2004

SUBJECT: Problems Mathematical Methods in Physics II
INSTITUTION: Physics Faculty

INSTITUTION: University of Barcelona

YEAR:2001-2002

SUBJECT: Laboratory Physics of Fluids

INSTITUTION: Physics Faculty

INSTITUTION: University of Barcelona

YEAR:2001-2003

SUBJECT: Graduate Course: "Topics on Condensed Matter Physics: Introduction to Soft Condensed Matter"

INSTITUTION: Physics Faculty

INSTITUTION: University of Barcelona

YEAR:2001-2002

SUBJECT: General Physics for Biologists

INSTITUTION: Biology Faculty

INSTITUTION: University of Barcelona

YEAR:2002-2004

SUBJECT: Graduate Course: "Soft Condensed Matter"

INSTITUTION: Physics Faculty

INSTITUTION: University of Barcelona

YEAR:2003-2006

SUBJECT: Physics of Fluids

INSTITUTION: Physics Faculty

INSTITUTION: University of Barcelona

YEAR:2004-2005

SUBJECT: Exercises Physics of Fluids

INSTITUTION: Physics Faculty

INSTITUTION: University of Barcelona

YEAR:2004-2007

SUBJECT: Laboratory Physics of Fluids

INSTITUTION: Physics Faculty

INSTITUTION: University of Barcelona

YEAR:2005-2007

SUBJECT:Coordinator Laboratory Physics of Fluids

INSTITUTION: Physics Faculty

INSTITUTION: University of Barcelona

YEAR:2005-2007

SUBJECT: Coordinator of the Master in Computational and Applied Physics

INSTITUTION: Physics Faculty

INSTITUTION: University of Barcelona

YEAR:2005-2008

SUBJECT:Molecular Dynamics and Monte Carlo Methods (Master in Computational and Applied Physics)

INSTITUTION: Physics Faculty

INSTITUTION: University of Barcelona

YEAR:2006-2012

SUBJECT: Modelling and Simulation (Master of Nanoscience)

INSTITUTION: Physics Faculty

INSTITUTION: University of Barcelona

YEAR:2006-2013

SUBJECT: Cellular Biophysics (master in Biophysics)

INSTITUTION: Physics Faculty

INSTITUTION: University of Barcelona

YEAR:2006-2008

SUBJECT: Physics of Fluids
INSTITUTION: Physics Faculty

INSTITUTION: University of Barcelona

YEAR:2007-2013

SUBJECT: Advanced Biophysics (master in Biophysics)
INSTITUTION: Physics Faculty

INSTITUTION: University of Barcelona

YEAR:2008-2012

SUBJECT: Biomechanics (Degree in Bioengineering) INSTITUTION: Physics Faculty
University of Barcelona

INSTITUTION:

YEAR:2012-2014

SUBJECT: Physics of Continuous Matter INSTITUTION: Physics Faculty INSTITUTION: University of Barcelona

YEAR:2011-2014

SUBJECT: Physics of Continuous Matter (Laboratory)
INSTITUTION: Physics Faculty

INSTITUTION: University of Barcelona

YEAR:2013-2014

SUBJECT: Dynamics of Phase Transitions and Disordered Systems (Master in Advanced Physics) INSTITUTION: Physics Faculty
INSTITUTION: University of Barcelona

YEAR:2013-2014

FINANCED RESEARCH PROJECTS

PROJECT TITLE: *Transport phenomena in out of equilibrium systems. Fluctuations and transport coefficients.*

FINANCING BODY: CAICYT

FROM: 1989 UNTIL: 1991

PRINCIPAL RESEARCHER: J.M. Rubí

PROJECT TITLE: *Statistical aspects of complex fluids*

FINANCING BODY: CAICYT

FROM: 1991 UNTIL: 1993

PRINCIPAL RESEARCHER: J.M. Rubí

PROJECT TITLE: *Statistical aspects of complex fluids*

FINANCING BODY: CAICYT

FROM: 1993 UNTIL: 1995

PRINCIPAL RESEARCHER: J.M. Rubí

PROJECT TITLE: *Optical and Statistical Properties of Colloidal Systems in Particular Lattices at or near Surfaces*

FINANCING BODY: CEE

FROM: 1991 UNTIL: 1995

PRINCIPAL RESEARCHER: J.M. Rubí, P. Schaaf (Institute *Charles Sadron*, CNRS-ULP, Strasbourg, France) and D. Bedeaux (*Gorlaeus Laboratoria*, University of Leiden, The Netherlands)

PROJECT TITLE: *Adsorption at the solid/liquid interface*

FINANCING BODY: CSIC-INSERM

FROM: 1994 UNTIL: 1996

PRINCIPAL RESEARCHER: J. Bermejo (CSIC, Madrid) and J.-C. Vogel (INSERM, Strasbourg).

PROJECT TITLE: *Phase equilibria and kinetics of polydisperse systems*

FINANCING BODY: British Government

FROM: 1998 UNTIL: 2001

PRINCIPAL RESEARCHER: Prof. M.E. Cates (University of Edinburgh) and T. McLeish (University of Leeds).

PROJECT TITLE: *Collective phenomena in classical monthoscopic systems out of equilibrium*

FINANCING BODY: CAICYT

FROM: 1999 UNTIL: 2003

PRINCIPAL RESEARCHER: J.M. Rubí

PROJECT TITLE: *Dynamics of complex fluids. Supercomputing project in CESCA (Centre de Supercomputació de Catalunya).*

FINANCING BODY: University of Barcelona

FROM: 2000 UNTIL: 2002

PRINCIPAL RESEARCHER: J.M. Rubí

PROJECT TITLE: *Integrated action Spain-France HF00-69*

FINANCING BODY: CAICYT

FROM: 2001 UNTIL: 2002

PRINCIPAL RESEARCHER: F. Ritort

PROJECT TITLE: *Statistical Physics of Glassy and Non-equilibrium systems (SPHINX)*

FINANCING BODY: European Science Foundation

FROM: 1999 UNTIL: 2003

PRINCIPAL RESEARCHER: D. Sherrington spanish coordinator: F. Ritort)

PROJECT TITLE: *SIMU*

FINANCING BODY: European Science Foundation

FROM: 1999 UNTIL: 2003

PRINCIPAL RESEARCHER: M. Mareschal (spanish coordinator: J. Lago)

PROJECT TITLE: *Non-linear transport and structures in nanoscopic systems: Control mechanisms and noise effects. BFM2002-01267*

FINANCING BODY: CAICYT

FROM: 2002 UNTIL: 2005

PRINCIPAL RESEARCHER: J.M. Rubí

FUNDING: 171215 Euros

PROJECT TITLE: *Integrated Action Spain-France: Transporte and polidispersidad en materiales coloidales and granulares HF02-19*

FINANCING BODY: CAICYT

FROM: 2003 UNTIL: 2005

PRINCIPAL RESEARCHER: I. Pagonabarraga

PROJECT TITLE: *Interegional Cooperation Action (ACI), ACI2002-20*

FINANCING BODY: Generalitat de Catalunya

FROM: 2003 UNTIL: 2004

PRINCIPAL RESEARCHER: I. Pagonabarraga

PROJECT TITLE: *Estancia Doctor Stratford. Programa IHP: Contrato HPRI-CT-1999-00071*

FINANCING BODY: E.U. - CEPBA

FROM: 2003 UNTIL: 2003

PRINCIPAL RESEARCHER: I. Pagonabarraga

PROJECT TITLE: *Equipamiento de cálculo paralelo*

FINANCING BODY: Ministerio de Ciencia and Tecnología- Convocatoria de infraestructura cinetífico-tecnológica

FROM: 2003 UNTIL: 2004

PRINCIPAL RESEARCHER: J.M. Rubí

FUNDING: 38584 Euros

PROJECT TITLE: *Equipamiento de cálculo intensivo*

FINANCING BODY: DURSI-Generalitat de Catalunya

FROM: 2002 UNTIL: 2003

PRINCIPAL RESEARCHER: J.M. Rubí

FUNDING: 18000 Euros

PROJECT TITLE: *Workshop: Experimentalist-modeling interactions (New trends on modeling granular flow)*

FINANCING BODY: CECAM (Lyon, France)

FROM: 2004 UNTIL: 2004

PRINCIPAL RESEARCHER: M. Mansour and I. Pagonabarraga

PROJECT TITLE: *Distinció per a la Promoció de la Recerca Universitària, Jove Investigador*

FINANCING BODY: DURSI - Generalitat de Catalunya

FROM: 2004 UNTIL: 2008 PRINCIPAL RESEARCHER: I. Pagonabarraga FUNDING: 120000 Euros

PROJECT TITLE: *Dinámica de auto-organización en fluidos poliméricos nanoestructurados*

FINANCING BODY: Special Action. Ministerio de Ciencia and Tecnología

FROM: 2004 UNTIL: 2005

PRINCIPAL RESEARCHER: I. Pagonabarraga

FUNDING: 100700 Euros

PROJECT TITLE: *Estancia Doctor Stratford. Programa HPC*

FINANCING BODY: E.U. - CESCA

FROM: 2005 UNTIL: 2005

PROJECT TITLE: *Grupo Consolidado de investigación en Física estadística, SGR-236'*

FINANCING BODY: DURSI - Generalitat de Catalunya

FROM: 2005 UNTIL: 2008 PRINCIPAL RESEARCHER: J.M. Rubí FUNDING: 42200 Euros

PROJECT TITLE: *Thematic Network "Physics of complex systems"*

FINANCING BODY: DURSI - Generalitat de Catalunya

FROM: 2005 UNTIL: 2006 FUNDING: 6000 Euros

PROJECT TITLE: *Procesos básicos en nanociencia and sus aplicaciones: de los sistemas biológicos a los conductores monthoscópicos (FIS2005-01299)*

FINANCING BODY: CAICYT

FROM: 2005 UNTIL: 2008 PRINCIPAL RESEARCHER: J.M. Rubí

FUNDING: 218960 Euros

PROJECT TITLE: *Fragmentación and fractura en materiales heterogéneos*

FINANCING BODY: Integrated Action Spain-Hungary - CAICYT (HH2005-0016)

DURACÍFROM: 2005 UNTIL: 2007 PRINCIPAL RESEARCHER: I. Pagonabarraga

FUNDING: 8000 Euros

PROJECT TITLE: *Materiales granulares*

FINANCING BODY: Acción complementaria - CAICYT

FROM: 2006 UNTIL: 2007

PRINCIPAL RESEARCHER: A. Garcimartín FUNDING: 9000 Euros

PROJECT TITLE: *Estancia Nelido Gonzalez Segredo. Programa HPC*

FINANCING BODY: E.U. - CESCA

FROM: 2006 UNTIL: 2006

PRINCIPAL RESEARCHER: I. Pagonabarraga

PROJECT TITLE: *Lattice Boltzmann simulations of complex fluids*

FINANCING BODY: Barcelona Supercomputing Center

FROM: 2006 UNTIL: 2008

PRINCIPAL RESEARCHER: I. Pagonabarraga

FUNDING: 1250 KHours

PROJECT TITLE: *Exploratory workshop: Physics of the Cell: From Single Molecules to Collective Behaviour*

FINANCING BODY: Generalitat de Catalunya

FROM: 2006 UNTIL: 2006

PRINCIPAL RESEARCHER: F. Ritort

FUNDING: 5000 Euros

PROJECT TITLE: *Exploratory workshop: Physics of the Cell: From Single Molecules to Collective Behaviour*

FINANCING BODY: ESF PESC

FROM: 2006 UNTIL: 2006

PRINCIPAL RESEARCHER: F. Ritort
FUNDING: 14000 Euros

PROJECT TITLE: *Challenges in Polymer Research*
FINANCING BODY: DEISA
FROM: 2007 UNTIL: 2008
PRINCIPAL RESEARCHER: K. Kremer (MPI for polymer research, Stuttgart, Germany)
FUNDING:

PROJECT TITLE: *PInternational Cooperation Program Spain-Brazil (HBP2004-0021)*
FINANCING BODY: CAICYT
FROM: 2007 UNTIL: 2008 PRINCIPAL RESEARCHER: F. Ritort
FUNDING: 12000 Euros

PROJECT TITLE: *Common trends between Kinetic theory, Dynamical Density Functional methods and mont-hoscopic methods based on effective free energy models*
FINANCING BODY: CECAM
FROM: 2008 UNTIL: 2008
PRINCIPAL RESEARCHER: I. Pagonabarraga, S. Melchionna and U. Marini Bettolo Marconi
FUNDING: 10000 Euros

PROJECT TITLE: *International Complementary Action Spain-India: Collective dynamics of active soft matter (PCI2006-A7-0547)*
FINANCING BODY: Ministerio de Ciencia and Educación
FROM: 2008 UNTIL: 2010
PRINCIPAL RESEARCHER: I. Pagonabarraga
FUNDING: 20000 Euros

PROJECT TITLE: *Modelización, cinética and conversión de energía en sistemas nanoscópicos (FIS2008-04386)*
FINANCING BODY: Ministerio de Ciencia and Educación
FROM: 2008 UNTIL: 2010
PRINCIPAL RESEARCHER: J.M. Rubí
FUNDING: 369000 Euros

PROJECT TITLE: *CECAM Workshop: Common trends between Kinetic theory, Dynamical Density Functional methods and monthoscopic methods based on effective free energy models*
FINANCING BODY: European Science Foundation (SimBioMa project)
FROM: 2008 UNTIL: 2008
PRINCIPAL RESEARCHER: I. Pagonabarraga
FUNDING: 10000 Euros

PROJECT TITLE: *International Incoming Short Visits*
FINANCING BODY: Royal Society (United Kingdom)
FROM: 2008 UNTIL: 2008
PRINCIPAL RESEARCHER: I. Pagonabarraga
FUNDING:

PROJECT TITLE: *'Unveiling the physics of cellular processes: new approaches to study macromolecules at work' (PIEF-GA-2008-219678)*
FINANCING BODY: European Union. Postdoctoral contribution Marie Curie Contract (IEF)
FROM: 2008 UNTIL: 2010
PRINCIPAL RESEARCHER: I. Pagonabarraga (Scientific Host)
FUNDING: 128181 Euros

PROJECT TITLE: *"Spanish Network on Physics of Systems Out or Equilibrium" (FIS2008-04403-E)*
FINANCING BODY: Ministerio de Ciencia e Innovación (MICINN)
FROM: 2008 UNTIL: 2010
PRINCIPAL RESEARCHER: I. Pagonabarraga
FUNDING: 40000 Euros

PROJECT TITLE: *"SIMULAHYBRID. Simulació Multiescala de líquidos simples y complejos medi-ante algoritmos híbridos partícula-continuo"*(FIS2011-13982-E)
FUNDING BODY: Spanish Ministry of Science and Innovation
FROM: 2011 UNTIL: 2011
PRINCIPAL RESEARCHER: R. Delgado-Buscalioni (Autonomous University Madrid)
FUNDING: 8000 Euros

PROJECT TITLE: *'Physics of Complex Colloids: Equilibrium and Driven (ITN-COMPLOIDS)'*
FINANCING BODY: European Union. Marie Curie Initial Training Network
FROM: 2009 UNTIL: 2011
PRINCIPAL RESEARCHER: C. Likos (University of Wien)
FUNDING:

PROJECT TITLE: *Established Research Group in Statistical Physics 2009 SGR 634*
FINANCING BODY: DURSI - Generalitat de Catalunya
FROM: 2009 UNTIL: 2014
PRINCIPAL RESEARCHER: J.M. Rubí
FUNDING: 48800 Euros

PROJECT TITLE: *Renewal of obsolete material*
FINANCING BODY: University of Barcelona
FROM: 2010 UNTIL: 2010
PRINCIPAL RESEARCHER: I. Pagonabarraga
FUNDING: 14000 Euros

PROJECT TITLE: *'Organization of the XVII National Conference on Statistical Physics*
FINANCING BODY: Ministry of Science and Innovation
FROM: 2009 UNTIL: 2010
PRINCIPAL RESEARCHER: I. Pagonabarraga
FUNDING: 10000 Euros

PROJECT TITLE: *'Organization of the XVII National Conference on Statistical Physics*
FINANCING BODY: AGAUR- Catalan Government
FROM: 2010 UNTIL: 2011
PRINCIPAL RESEARCHER: I. Pagonabarraga
FUNDING: 6000 Euros

PROJECT TITLE: *'Spanish Contribution to CECAM"*(AIC-B-2011-0733)
FINANCING BODY: Ministry of Science and Innovation
FROM: 2011 UNTIL: 2011
PRINCIPAL RESEARCHER: I. Pagonabarraga
FUNDING: 30000 Euros

PROJECT TITLE: *Spanish network on non-equilibrium systems (FIS2010-11438-E)*
PROJECT TITLE: Ministry of Science and Innovation
FROM: 2011 UNTIL: 2012
PRINCIPAL RESEARCHER: I. Pagonabarraga
FUNDING: 15000 Euros

PROJECT TITLE: *"LBSCOM*
PROJECT TITLE: PRACE-2IPn
FROM: 2012 UNTIL: 2013
PRINCIPAL RESEARCHER: O. Henrich (Univ. Edinburgh, UK)
FUNDING: 3200000 computing hours

PROJECT TITLE: *'Pulsatile Viscous and Viscoelastic Microfluidic (PIIF-GA-2011-301214)*
ENTIDAD FINANCIADORA: European Union. International Incoming Fellowships
FROM: 2012 UNTIL: 2014

INVESTIGADOR PRINCIPAL: I. Pagonabarraga (Host scientist)

FUNDING: 226548 Euros

PROJECT TITLE: *Formation, transport and energetics in mesoscopic multidisciplinary systems (FIS2011-22603)*

FINANCING BODY: Ministry of Science and Innovation

FROM: 2011 UNTIL: 2013

PRINCIPAL RESEARCHER: J.M. Rubi

FUNDING: 330000 Euros

PROJECT TITLE: *Emerging structures and fluid stirring in suspensions of active particles*

FINANCING BODY: PRACE

FROM: 2013 UNTIL: 2014

PRINCIPAL RESEARCHER: I. Pagonabarraga

FUNDING: 17000000 core hours

PROJECT TITLE: *"Flowing Matter". Cost Action MP1305*

FINANCING BODY: European Union. Cost Actions

FROM: 2014 UNTIL: 2018

PRINCIPAL RESEARCHER: F. Toschi (Univ. Eindhoven); I. Pagonabarraga (Spanish Representative)

FUNDING: 100 Million Euros

PUBLICATIONS

TYPE: L = Book CL = Book Chapter, A = Paper, R = Review, E = Editor.

1. AUTHORS : I. Pagonabarraga, L. Torner and J.M. Rubí
TITLE: *Boundary effects in the Rayleigh line for a fluid out of thermal equilibrium*
JOURNAL: Physica A **173**, 111 (1991) TYPE: A

2. AUTHORS: I. Pagonabarraga and J.M. Rubí
TITLE: *Derivation of the Langmuir adsorption equation from non-equilibrium thermodynamics*
JOURNAL: Physica A **188**, 553 (1992) TYPE: A

3. AUTHORS : I. Pagonabarraga and J.M. Rubí
TITLE: *Long-range correlations in diffusive systems away from equilibrium*
JOURNAL: Physical Review E **49**, 267 (1994). TYPE: A

4. AUTHORS : I. Pagonabarraga J. Villain, I. Elkinani and M.B.Gordon
TITLE: *Lattice effects in crystal evaporation*
JOURNAL: Journal of Physics A **27**, 1859 (1994). TYPE: A

5. AUTHORS : I. Pagonabarraga and J.M. Rubí
TITLE: *Influence of hydrodynamic interactions on the adsorption process of large particles*
JOURNAL: Physical Review Letters **73**, 114 (1995). TYPE: A

6. AUTHORS : J. Bafaluy, I. Pagonabarraga, J.M. Rubí and D. Bedeaux
TITLE: *Thermocapillary motion of a drop in a fluid under external gradients. Faxén theorem*
JOURNAL: Physica A **213**, 277 (1995). TYPE: A

7. AUTHORS : I. Pagonabarraga, J. Bafaluy and J.M. Rubí
TITLE: *Adsorption of colloidal particles in the presence of external fields*
JOURNAL: Physical Review Letters **75**, 461 (1995). TYPE: A

8. AUTHORS : J. Bonet-Avalos and I. Pagonabarraga
TITLE: *Phenomenological approach to non-linear Langevin equations*
JOURNAL: Physical Review E **52**, 5881 (1995). TYPE: A

9. AUTHORS : I. Pagonabarraga, P. Wojtaszczyk, J.M. Rubí, B. Senger, P. Schaaf and J.-C. Voegel
TITLE: *Influence of hydrodynamic interactions on the ballistic deposition of colloidal particles on solid surfaces*
JOURNAL: Journal Chemical Physics **105**, 7815-7827 (1996). TYPE: A

10. AUTHORS : I. Pagonabarraga, A. Pérez-Madrid and J.M. Rubí
TITLE: *Fluctuating hydrodynamics approach for chemical reactions*
JOURNAL: Physica A **237**, 205 (1997). TYPE: A
-
11. AUTHORS : M.H. Hagen, I. Pagonabarraga, C.P. Lowe, and D. Frenkel
TITLE: *Algebraic decay of velocity fluctuations in a confined fluid*
JOURNAL: Physical Review Letters **78**, 3785 (1997). TYPE: A
-
12. AUTHORS: I. Pagonabarraga and J.M. Rubí
TITLE: *Influence of transport on the adsorption of colloidal suspensions*
JOURNAL: Journal of Molecular Liquids **71** 137 (1997). TYPE: A
-
13. AUTHORS : I. Pagonabarraga and J.M. Rubí
TITLE: *Adsorption of colloidal particles: influence of transport (hydrodynamic interactions)*
JOURNAL: Colloids and Surfaces A: Physicochemical and Engineering Aspects **127**, 249 (1997). TYPE: A
-
14. AUTHORS : J. Bafaluy, P. Schaaf, B. Senger, J.-C. Voegel and I. Pagonabarraga
TITLE: *Density fluctuations of assemblies of irreversibly deposited particles on solid surfaces*
JOURNAL: Journal of Chemical Physics **107** , 2089 (1997). TYPE: A
-
15. AUTHORS: I. Pagonabarraga, M.H.J. Hagen and D. Frenkel
TITLE: *Self-Consistent dissipative particle dynamics algorithm*
JOURNAL: Europhysics Letters **42**, 377-382 (1998). TYPE: A
-
16. AUTHORS : I. Pagonabarraga, M.H.J. Hagen, C.P. Lowe and D. Frenkel
TITLE: *Algebraic decay of velocity fluctuations near a wall*
JOURNAL: Physical Review E **58**, 7288-7295 (1998). TYPE: A
-
17. AUTHORS : M. Revenga, I. Zúñiga, P. Español and I. Pagonabarraga
TITLE: *Boundary models in DPD*
JOURNAL: International Journal of Modern Physics C **9**, 1319-1328 (1998). TYPE: A
-
18. AUTHORS : I. Pagonabarraga, J. Bafaluy and J.M. Rubí
TITLE: *Adsorption kinetics in the presence of external fields*
JOURNAL: Physical Review E **59**, 4285-4297 (1999). TYPE: A
-
19. AUTHORS : T.van Noije, M.H.J. Ernst, E.Trizac and I. Pagonabarraga,
TITLE: *Randomly driven granular fluids: Large-scale structure*
JOURNAL: Physical Review E **59**, 4326-4341 (1999). TYPE: A
-

20. AUTHORS : I. Pagonabarraga, M.H.J. Hagen, C.P. Lowe and D. Frenkel
TITLE: *Short-time dynamics of colloidal suspensions in confined geometries*
JOURNAL: Physical Review E **59**, 4458-4469 (1999). TYPE: **A**
-
21. AUTHORS : I. Pagonabarraga and D. Frenkel
TITLE: *Non-ideal DPD fluids*
JOURNAL: Molecular Simulation **25**, 167-175 (2000). TYPE: **A**
-
22. AUTHORS : I. Pagonabarraga, M.E. Cates and G. Ackland
TITLE: *Local size segregation in inhomogeneous hard sphere fluids*
JOURNAL: Physical Review Letters **84**, 911-914 (2000). TYPE: **A**
-
23. AUTHORS : J.-C. Desplat, I. Pagonabarraga and P. Bladon
TITLE: *LUDWIG: A parallel Lattice-Boltzmann code for complex fluids*
JOURNAL: Computer Physics Communications **134**, 273 (2001). TYPE: **A**
-
24. AUTHORS : V.M. Kendon, M.E. Cates, I. Pagonabarraga, J.-C. Desplat and P. Bladon
TITLE: Inertial effects in three dimensional spinodal decomposition of a symmetric binary fluid mixture: A lattice Boltzmann study
JOURNAL: Journal of Fluid Mechanics **440**, 147(2001). TYPE: **A**
-
25. AUTHORS : I. Pagonabarraga, J.-C. Desplat, A.J. Wagner and M.E. Cates
TITLE: Interfacial dynamics in 3D binary fluid demixing: Animation studies
JOURNAL: New Journal of Physics **3**, 91 (2001). TYPE: **A**
-
26. AUTHORS : I. Pagonabarraga and M.E. Cates
TITLE: *A practical density functional for polydisperse polymers.*
JOURNAL: Europhysics Letters **55**, 348 (2001). TYPE: **A**
-
27. AUTHORS (p.o. de firma): I. Pagonabarraga and D. Frenkel
TITLE: *Dissipative particle dynamics for interacting systems*
JOURNAL: Journal of Chemical Physics **115**, 5015 (2001). TYPE: **A**
-
28. AUTHORS : I. Pagonabarraga, E.Trizac, T.van Noije and M.H.J. Ernst
TITLE: *Randomly driven granular fluids: collisional statistics and short scale structure.*
JOURNAL: Phys. Rev. E **65**, 011303 (2002). TYPE: **A**
-

29. AUTHORS : I. Pagonabarraga, A.J. Wagner and M.E. Cates
TITLE: *Binary fluid demixing: The crossover region.*
JOURNAL: Journal of Statistical Physics **107**, 39 (2002). TYPE: **A**
-
30. AUTHORS: A.J. Wagner and I. Pagonabarraga
TITLE: *Lees-Edwards boundary conditions for Lattice Boltzmann.*
JOURNAL: Journal of Statistical Physics **107**, 521 (2002). TYPE: **A**
-
31. AUTHORS : I. Pagonabarraga and M.E. Cates
TITLE: *Dynamics of polydisperse polymer solutions*
JOURNAL: Macromolecules **36**, 934 (2003). TYPE: **A**
-
32. AUTHORS : I. Pagonabarraga and E. Trizac
TITLE: Kinetics of Fragmenting Freely Evolving Granular Gases
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TYPE: A
-
131. AUTHORS : A. Torres, A.M. Romero, I. Pagonabarraga, R.D.M. Travasso and E. Corvera Poiré
TITLE: *Obstructions in vascular networks. Critical vs non-critical topological sites for blood supply*
JOURNAL: Submitted
TYPE: A
-

132. AUTHORS : P. Margaretti, I. Pagonabarraga, and J.M. Rubí

TITLE: *Entropic electrokinetic transport*

JOURNAL: Submitted

TYPE: **A**

133. AUTHORS : G.R. Lázaro, A. Hernández-Machado, and I. Pagonabarraga

TITLE: *Rheology of red blood cells under flow in highly confined microchannels: I. Effect of elasticity*

JOURNAL: Submitted

TYPE: **A**

134. AUTHORS: G.R. Lázaro, A. Hernández-Machado, and I. Pagonabarraga

TITLE: *Rheology of red blood cells under flow in highly confined microchannels: II. Effect of focusing and confinement*

JOURNAL: Submitted

TYPE: **A**

135. AUTHORS: G.R. Lázaro, I. Pagonabarraga, and A. Hernández-Machado

TITLE: *Phase-field theories for mathematical modeling of biological membranes*

JOURNAL: Submitted

TYPE: **CB**

STAYS IN FOREIGN INSTITUTIONS

TYPE: D = Doctoral, P = postdoctoral, I = invited, C = contract, O = other.

INSTITUTION: *Centre d'Etudes Nucléaires de Grenoble* PLACE: Grenoble COUNTRY: France
 YEAR:1991
 PERIOD: 3 months
 TOPIC: Surface growth TYPE: **D**

INSTITUTION: Department of Chemical Physics and Macromolecules, Laboratory *Gorlaeus* PLACE: Leiden
 COUNTRY: The Netherlands
 YEAR:1993-1994
 PERIOD: 4 weeks
 TOPIC: Colloidal dynamics at interfaces TYPE: **D**

INSTITUTION: Institute *Charles Sadron* and University *Louis Pasteur* PLACE: Estrasburgo COUNTRY: France
 YEAR:1993-1996
 PERIOD: 3 months
 TOPIC: Dynamics of colloidal adsorption TYPE: **D**

INSTITUTION: Institute AMOLF PLACE: Amsterdam COUNTRY: The Netherlands
 YEAR:1996-1999
 DURACIÓN: 34 months
 TOPIC: Simulation of complex fluids TYPE: **P**

INSTITUTION: Physics Department, University of Edinburgh PLACE: Edinburgh PAÍS: United Kingdom
 YEAR:1999-2000
 PERIOD: 18 months
 TOPIC: Equilibrium and dynamics of complex fluids. Polydispersity TYPE: **P**

INSTITUTION: Department of Theoretical Physics , University Paris-Sud (Orsay) PLACE: Orsay COUNTRY: France
 YEAR:2002
 PERIOD: 3 months
 TOPIC: Granular materials TYPE: **I**

INSTITUTION: Physics Department, University of Edinburgh PLACE: Edinburgh COUNTRY: United Kingdom
 YEAR:2003
 PERIOD: 1 month and a half
 TOPIC: Complex fluids modelling TYPE: **O** Access to large facilities (EPCC)

INSTITUTION: Physics Department, University of Edinburgh PLACE: Edinburgh COUNTRY: United Kingdom
 YEAR:2003
 PERIOD: 1 month
 TOPIC: Complex Fluid modeling TYPE: **I**

INSTITUTION: AMOLF-Institute for Atomic and Molecular Physics PLACE: Amsterdam COUNTRY: The Netherlands
 YEAR:2003
 PERIOD: 1 month
 TOPIC: Electrolyte dynamics TYPE: **I**

INSTITUTION: University of Lyon PLACE: Lyon COUNTRY: France
 YEAR:2005
 PERIOD: 1 month
 TOPIC: Electrolyte dynamics TYPE: **I**

INSTITUTION: University Paris XI PLACE: Orsay COUNTRY: France
 YEAR:2009

PERIOD: 1 month
TOPIC: Granular materials; Polydispersity TYPE: I

INSTITUTION: Technical University of Berlin PLACE: Berlin COUNTRY: Germany
YEAR:2010
PERIOD: 2 months
TOPIC: Dynamics of active fluids TYPE: I

INSTITUTION: University of Edinburgh PLACE: Edinburgh COUNTRY: United Kingdom
YEAR:2013
PERIOD: 1 month
TOPIC: Mesoscopic modeling; electrokinetic flows TYPE: I

CONFERENCES

AUTHORS: I. Pagonabarraga and J.M. Rubí

TITLE: **Long-range correlations in diffusive systems away from equilibrium**

PRESENTATION TYPE: Oral contribution

CONFERENCE: *NATO advanced school Simulations of Complex Hydrodynamic Phenomena*

PLACE: Alghero (Italy) YEAR: 1991

AUTHORS: I. Pagonabarraga and J.M. Rubí

TITLE: **Influencia de las interacciones hidrodinámicas en la adsorción de partículas pesadas**

PRESENTATION TYPE: Oral contribution

CONFERENCE: *VI Reunión de Física Estadística*

PLACE: Sevilla (Spain) YEAR: 1994

AUTHORS: I. Pagonabarraga and J.M. Rubí

TITLE: **Hydrodynamic interactions and the adsorption of colloidal particles**

PRESENTATION TYPE: Oral contribution

CONFERENCE: *Space Filling Problems*

PLACE: Les Houches (France) YEAR: 1995

AUTHORS: I. Pagonabarraga and J.M. Rubí

TITLE: **External field effects in the adsorption of colloidal suspensions**

PRESENTATION TYPE: Oral contribution

CONFERENCE: *Rencontres de Physique Statistique*

PLACE: París (France) YEAR: 1996

AUTHORS: J.M. Rubí and I. Pagonabarraga

TITLE: **Adsorption of colloidal particles on a surface**

PRESENTATION TYPE: Invited oral contribution

CONFERENCE: *Colloque Dynamique des Surfaces et Croissance Cristalline*

PLACE: Grenoble (France). YEAR: 1996

AUTHORS: I. Pagonabarraga, M.Hagen, C.P. Lowe and D. Frenkel

TITLE: **Long-time tails in confined media: a new mode-coupling effect**

PRESENTATION TYPE: Oral contribution

CONFERENCE: *Wetenschappelijke vergadering statistische fysica*

PLACE: Lunteren (The Netherlands). YEAR: 1997

AUTHORS: I. Pagonabarraga, C.P. Lowe and D. Frenkel

TITLE: **Can computer simulations tell us anything useful about colloidal suspensions?**

PRESENTATION TYPE: Invited oral contribution

CONFERENCE: *Nederlandse reologische vereniging*

PLACE: Delft (The Netherlands). YEAR: 1997

AUTHORS: I. Pagonabarraga, M.Hagen, C.P. Lowe and D. Frenkel

TITLE: **Dynamics of colloids in confined geometries using LB**

PRESENTATION TYPE: Oral contribution

CONFERENCE: *Model and algorithms for monthoscopic simulation of colloidal particles*

PLACE: Lyon (France) YEAR: 1997

AUTHORS: I. Pagonabarraga, M.Hagen, C.P. Lowe and D. Frenkel
TITLE: **Dynamics of colloids in confined systems: A new mode-coupling effect**
PRESENTATION TYPE: Invited oral contribution
CONFERENCE: *Theoretische Fysiche-Chemie Dag* PLACE: Leiden (The Netherlands). YEAR: 1997

AUTHORS: C.P. Lowe and I. Pagonabarraga
TITLE: **Mesosopic planes**
PRESENTATION TYPE: Oral contribution
CONFERENCE: *Structure and dynamics of materials in the monthoscopic domain, Indo-UK Forum*
PLACE: Pune (India) YEAR: 1997

AUTHORS: I. Pagonabarraga, M. Hagen, C.P. Lowe and D. Frenkel
TITLE: **Dynamics of colloids in confined systems**
PRESENTATION TYPE: Oral contribution
CONFERENCE: *3 Reunión Nacional del Grupo de Coloides and interfases*
PLACE: Almeria (Spain). YEAR: 1998

AUTHORS: I. Pagonabarraga and D. Frenkel
TITLE: **Self-consistent dissipative particle dynamics**
PRESENTATION TYPE: Oral contribution
CONFERENCE: *7th international conference on the discrete simulation of fluids*
PLACE: Oxford (UK) YEAR: 1998

AUTHORS: I. Pagonabarraga and D. Frenkel
TITLE: **Non-ideal dissipative particle dynamics fluids**
PRESENTATION TYPE: Oral contribution
CONFERENCE: *Molecular Simulation'99*
PLACE: Web Conference YEAR: 1999

AUTHORS: I. Pagonabarraga and M. Cates
TITLE: **Local size segregation in polydisperse fluids**
PRESENTATION TYPE: Oral contribution
CONFERENCE: *Soft Condensed Matter Network Meeting*
PLACE: Oxford (U.K.) YEAR: 1999

AUTHORS: I. Pagonabarraga and M. Cates
TITLE: **Inertial effects in the spinodal desomposition of a binary fluid**
PRESENTATION TYPE: Oral contribution
CONFERENCE: *9th International Conference on: Discrete Simulation of Fluid Dynamics*
PLACE: Santa Fe (U.S.A.) YEAR: 2000

AUTHORS: I. Pagonabarraga and M.E. Cates
TITLE: **Density functional model for polydisperse polymers**
PRESENTATION TYPE: Oral contribution
CONFERENCE: *Chains@Interfaces 2001. A EuroConference on the Physics of Surfactants and Polymers at Interfaces.*
PLACE: Evora (Portugal) YEAR: 2001

AUTHORS: I. Pagonabarraga
TITLE: **A parallel Lattice-Boltzmann code for complex fluids**
PRESENTATION TYPE: Oral contribution
CONFERENCE: *"TAM (TRACS-ACCESS-MINOS) Meeting"*.
PLACE: Edinburgh (United Kingdom). YEAR: 2001

AUTHORS: I. Pagonabarraga
TITLE: **Using DPD to model complex fluids?**
PRESENTATION TYPE: Invited oral contribution
CONFERENCE: *"Liquid state theory: From white dwarfs to colloids"*.
PLACE: Les Houches (France). YEAR: 2002

AUTHORS: I. Pagonabarraga
TITLE: **Lattice Boltzmann modeling of complex fluids**
PRESENTATION TYPE: Invited Course
CONFERENCE: *"SoftSimu 2002". Summer School*
PLACE: Helsinki (Finland). YEAR: 2002

AUTHORS: I. Pagonabarraga
TITLE: **Freely evolving fragmenting granular gases**
PRESENTATION TYPE: Invited oral contribution
CONFERENCE: *"Granular Gases: Theory - Experiments - Simulations "*
PLACE: Lyon (France). YEAR: 2002

AUTHORS: I. Pagonabarraga
TITLE: **Kinetics of polydisperse polymer mixtures**
PRESENTATION TYPE: Invited oral contribution
CONFERENCE: *"Mesoscopic modelling of polymer dynamics "*
PLACE: Lyon (France). YEAR: 2003

AUTHORS: I. Pagonabarraga
TITLE: **A lattice model for granular fluids**
PRESENTATION TYPE: Invited oral contribution
CONFERENCE: *"Granular Fluids "*
PLACE: Paris (France). YEAR: 2003

AUTHORS: I. Pagonabarraga
TITLE: **The temperatures of a (fragmenting) granular gas**
PRESENTATION TYPE: Invited oral contribution
CONFERENCE: *"Non-Equilibrium temperature in glassy systems "*
PLACE: Barcelona (Spain). YEAR: 2004

AUTHORS: I. Pagonabarraga
TITLE: **Mesoscopic models of electrohydrodynamics**
PRESENTATION TYPE: Invited oral contribution
CONFERENCE: *"Particle-Based Mesoscale Simulation Symposium "*
PLACE: Minneapolis (USA). YEAR: 2004

AUTHORS: I. Pagonabarraga
TITLE: **Lattice model for the evolution of a granular fluid**
PRESENTATION TYPE: Invited oral contribution
CONFERENCE: *"Experimentalist-modeling interactions: new trends on modeling granular flows"*
PLACE: Lyon (France). YEAR: 2004

AUTHORS: I. Pagonabarraga
TITLE: **Complex fluid dynamics at monthoscales: mixtures of uncharged and charged fluids**
PRESENTATION TYPE: Invited oral contribution
CONFERENCE: *"Novel approaches to efficient simulation of soft matter systems "*
PLACE: Lyon (France). YEAR: 2004

AUTHORS: I. Pagonabarraga
TITLE: **Mesoscopic models for electrokinetic phenomena**
PRESENTATION TYPE : Invited oral contribution
CONFERENCE: *"Dynamics of Fluids at Interfaces"*

PLACE : Lyon (France). YEAR: 2004

AUTHORS: C. Nieto-Draghi, A.D. Mackie, I. Pagonabarraga and J. Bonet-Avalos
TITLE: **Modelling Non-Newtonian dynamics with DPD particles: a non-linear model**
PRESENTATION TYPE : Invited oral contribution
CONFERENCE: *"SIMU 2004 - bridging the scales"*
PLACE : Genova (Italy). YEAR: 2004

AUTHORS: I. Pagonabarraga
TITLE: **Mesoscopic models for complex fluids: from non-ideal to charged mixtures**
PRESENTATION TYPE : Invited oral contribution
CONFERENCE: *"Europhysics Conference on Computational Physics 2004"*
PLACE : Genova (Italy). YEAR: 2004

AUTHORS: I. Pagonabarraga
TITLE: **Hydrodynamic correlations in the dynamics and transport of biofilaments**
PRESENTATION TYPE : Invited oral contribution
CONFERENCE: *Nonequilibrium Physics: from Complex Fluids to Biological Systems "Phynecs 2004"*
PLACE : Carghese (France). YEAR: 2004

AUTHORS: D. Houtman and I. Pagonabarraga
TITLE: **Modeling molecular motors in a sticky solution**
PRESENTATION TYPE : Oral contribution
CONFERENCE: *Amsterdam-New York Soft matter meeting*
PLACE: Amsterdam (The Netherlands). YEAR: 2005

AUTHORS: K. Stratford, I. Pagonabarraga, R. Adhikari and M.E. Cates
TITLE: **Colloids in binary fluids via the lattice Boltzmann method**
PRESENTATION TYPE : Oral contribution
CONFERENCE: *Scottish fluid mechanics meeting*
PLACE : Edinburgh (UK). YEAR: 2005

AUTHORS: I. Pagonabarraga TITLE: **Inestabilitats i turbulència en fluids complexos: quan Reynolds es troba en Péclet, Weissenberg, etc**
PRESENTATION TYPE: Invited oral contribution
CONFERENCE: *Trobada anual Societat Catalana de Matemàtiques*
PLACE : Barcelona (Spain).
YEAR: 2005

AUTHORS: I. Pagonabarraga TITLE: **Colloid (hydro)dynamics at fluid interfaces**
PRESENTATION TYPE : Invited oral contribution
CONFERENCE: *Biological Membranes: current challenges*
PLACE : Benasque (Spain).
YEAR: 2005

AUTHORS: I. Pagonabarraga TITLE: **Hydrodynamic interactions at mesoscopic scales**
PRESENTATION TYPE : Invited oral contribution
CONFERENCE: *Soft interfaces with hydrodynamic interactions*
PLACE : Amsterdam (The Netherlands).
YEAR: 2005

AUTHORS: I. Pagonabarraga TITLE: **Colloid hydrodynamics at interfaces**
PRESENTATION TYPE : Invited oral contribution
CONFERENCE: *MESOSIM: Mesoscale Simulation Techniques for Soft Matter Systems*
PLACE : Juelich (Germany).
YEAR: 2006

AUTHORS: I. Pagonabarraga
TITLE: **Mesoscopic models for electrohydrodynamics**

PRESENTATION TYPE: Invited oral contribution
CONFERENCE: *“Modelling and simulation of clays over various scales of time and space “*
PLACE : Lyon (France). YEAR: 2006

AUTHORS: I. Pagonabarraga
TITLE: **Mesoscopic modelling of biocolloidal hydrodynamics**
PRESENTATION TYPE : Oral contribution
CONFERENCE: *“Mesoscale and multiscale description of complex fluids “*
PLACE : Prato (Italy). YEAR: 2006

AUTHORS: I. Pagonabarraga
TITLE: **Arrested colloidal structures at fluid interfaces**
PRESENTATION TYPE: Oral contribution
CONFERENCE: *“Liquid Systems under extreme conditions“, European-Japanese molecular liquid group annual meeting*
PLACE : Barcelona (Spain). YEAR: 2006

AUTHORS: I. Pagonabarraga
TITLE: **Mesoscopic models for thin liquid films**
PRESENTATION TYPE : Invited oral contribution
CONFERENCE: *‘ESF-FWF Conference: Solid/Fluid Interfaces. Complex Fluid Interfaces and Nanofluidics*
PLACE : Obergurgl (Austria). YEAR: 2006

AUTHORS: I. Pagonabarraga
TITLE: **Mesoscopic modelling of biocolloidal hydrodynamics**
PRESENTATION TYPE : Invited oral contribution
CONFERENCE: *Workshop de la Red temática “sistemonth Complexos”de la Generalitat de Catalunya*
PLACE : Barcelona (Spain). YEAR: 2006

AUTHORS: I. Pagonabarraga
TITLE: **Dynamic regimonth of swimmers**
PRESENTATION TYPE : Invited oral contribution
CONFERENCE: *Assembly, Organization and Propulsion in Complex Systems*
PLACE : Chennai (India). YEAR: 2007

AUTHORS: I. Pagonabarraga
TITLE: **Collective hydrodynamics of swimmers**
PRESENTATION TYPE : Invited oral contribution
CONFERENCE: *Mesoscale modelling for complex fluids and flows*
PLACE : Oxford (UK). YEAR: 2007

AUTHORS: I. Pagonabarraga
TITLE: **Cooperative dynamics in biofluids: from filaments to propellers**
PRESENTATION TYPE : Oral contribution
CONFERENCE: *Conference of computational physics 2007*
PLACE: Brussels (Belgium). YEAR: 2007

AUTHORS: I. Pagonabarraga
TITLE: **Dynamical regimonth of self propelled suspensions**
PRESENTATION TYPE: Invited oral contribution
CONFERENCE: *Modeling and computer simulations of microswimming and bacterial motility*
PLACE: Munich (Germany). YEAR: 2007

AUTHORS: I. Pagonabarraga
TITLE: **Kinetics of fragmenting systems**
PRESENTATION TYPE : Invited oral contribution
CONFERENCE: *Granular Fluids: A proving ground for Nonequilibrium Statistical Mechanics*
PLACE: Sevilla (Spain). YEAR: 2007

AUTHORS: I. Pagonabarraga
TITLE: **Hydrodynamic cooperativity in active fluids**
PRESENTATION TYPE : Oral contribution
CONFERENCE: *International Soft Matter Conference (ISMC)*
PLACE : Aachen (Germany). YEAR: 2007

AUTHORS: I. Pagonabarraga
TITLE: **Hydrodynamic cooperativity in active fluids**
PRESENTATION TYPE: Invited oral contribution
CONFERENCE: *72th Annual Meeting of the German Physical Society*
PLACE : Berlin (Germany). YEAR: 2008

AUTHORS: I. Pagonabarraga
TITLE: **Electrohydrodynamic modeling: from colloid to protein simulations**
PRESENTATION TYPE : Invited oral contribution
CONFERENCE: *ESF Workshop: "Electrostatic effects in soft matter. Bringing experiments, theory and simulations together"*
PLACE : Bellatera (Spain). YEAR: 2008

AUTHORS: I. Pagonabarraga
TITLE: **Controlling thin fluid films on heterogeneous substrates**
PRESENTATION TYPE : Invited oral contribution
CONFERENCE: *ESF Workshop: "Physics of micro- and nano-flows"*
PLACE : Leiden (The Netherlands). YEAR: 2008

AUTHORS: I. Pagonabarraga
TITLE: **Soft potentials for coarse grained modelling**
PRESENTATION TYPE : Invited oral contribution
CONFERENCE: *CECAM Workshop: "Dissipative Particle Dynamics: Addressing Deficiencies and Establishing New Frontiers"*
PLACE : Lausanne (Switzerland). YEAR: 2008

AUTHORS: I. Pagonabarraga
TITLE: **Fragmenting granular fluids**
PRESENTATION TYPE : Invited oral contribution
CONFERENCE: *CECAM Workshop: "Granular Gases beyond the dilute limit"*
PLACE : Thurnau (Germany). YEAR: 2008

AUTHORS: I. Pagonabarraga
TITLE: **Thin fluid films on chemically patterned surfaces**
PRESENTATION TYPE : Invited oral contribution
CONFERENCE: *CECAM Workshop: "Common trends between Kinetic theory, Dynamical Density Functional methods and mesoscopic methods based on effective free energy models"*
PLACE : Lausanne (Switzerland). YEAR: 2008

AUTHORS: I. Pagonabarraga
TITLE: **Soft potentials in multiscale modelling**
PRESENTATION TYPE: Invited oral contribution
CONFERENCE: *Development and Analysis of Multiscale Methods*
PLACE: Minnesota (USA). YEAR: 2008

AUTHORS: I. Pagonabarraga
TITLE: **Active microswimmers: from individual motion to collective structures**
PRESENTATION TYPE: Invited oral contribution
CONFERENCE: *SIAM Conference on Computational Science and Engineering*
PLACE: Miami (USA). YEAR: 2009

AUTHORS: I. Pagonabarraga
TITLE: **Collective properties of model self-propelled suspensions**

PRESENTATION TYPE: Invited oral contribution
CONFERENCE: *Mesoscale simulations of soft matter out of equilibrium*
PLACE: Juelich (Germany). YEAR: 2009

AUTHORS: M. Pinna, I. Pagonabarraga, A. Zvelindovsky
TITLE: **Modeling of block copolymer/nanoparticle nano-composites**
PRESENTATION TYPE: Oral contribution
CONFERENCE: *APS March Meeting 2009*
PLACE: Pittsburgh (USA).
YEAR: 2009

AUTHORS: I. Pagonabarraga
TITLE: **Model microswimmers: From individual motion to collective response**
PRESENTATION TYPE: Invited oral contribution
CONFERENCE: *ACAM Workshop: Driven Microfluidic Systems*
PLACE: Dublin (Ireland). YEAR: 2009

AUTHORS: I. Pagonabarraga
TITLE: **Control and structure formation in internally driven model colloids**
PRESENTATION TYPE: Invited oral contribution
CONFERENCE: *BCNucleation Workshop*
PLACE: Barcelona (Spain). YEAR: 2009

AUTHORS: I. Pagonabarraga
TITLE: **Control and structure formation in internally driven model colloids**
PRESENTATION TYPE: Invited oral contribution
CONFERENCE: *18th International Conference on Discrete Simulations of Fluid Dynamics (DSFD 2009)*
PLACE: Beijing (China). YEAR: 2009

AUTHORS: D. Frenkel and I. Pagonabarraga
TITLE: **Coarse Grained simulations of charge, current and flow in heterogeneous media**
PRESENTATION TYPE: Oral contribution
CONFERENCE: *Faraday Discussion 144: Multiscale Modelling of Soft Matter*
PLACE: Groningen (The Netherlands). YEAR: 2009

AUTHORS: I. Pagonabarraga
TITLE: **Control and structure formation in internally driven colloids**
PRESENTATION TYPE: Invited oral contribution
CONFERENCE: *V International Workshop in Nonequilibrium Thermodynamics (IWNET)*
PLACE: Cuernavaca (Mexico). YEAR: 2009

AUTHORS: I. Pagonabarraga
TITLE: **Cooperative behavior in active suspensions: Competition between internal and external drivings**
PRESENTATION TYPE: Invited oral contribution
CONFERENCE: *Collective dynamics and pattern formation in active matter systems*
PLACE: Berlin (Germany) YEAR: 2009

AUTHORS: I. Pagonabarraga
TITLE: **Coarse grained approach to the flow of charged fluids in heterogeneous media**
PRESENTATION TYPE: Invited oral contribution
CONFERENCE: *Multiscale Modeling and Simulations of Hard and Soft Materials*
PLACE: Bangalore (India) YEAR: 2009

AUTHORS: I. Pagonabarraga
TITLE: **Wetting instabilities in forced thin fluid films**
PRESENTATION TYPE: Oral contribution
CONFERENCE: *'Sistemas fuera del equilibrio: Sistemas no lineales, nanociencia y dinámica de fluidos'*
PLACE: Leganés (Spain) YEAR: 2010

AUTHORS: I. Pagonabarraga
TITLE: **Charged fluid modeling in heterogeneous media through coarse-graining**
PRESENTATION TYPE: Oral contribution
CONFERENCE: *19th International Conference on Discrete Simulations of Fluid Dynamics (DSFD 2010)*
PLACE: Rome (Italy) YEAR: 2010

AUTHORS: I. Pagonabarraga
TITLE: **Forcing internally-driven colloidal suspensions**
PRESENTATION TYPE: Invited oral contribution
CONFERENCE: *CECAM Workshop: Mesoscale methods for colloidal hydrodynamics*
PLACE: Lausanne (Suiza) YEAR: 2010

AUTHORS: I. Pagonabarraga
TITLE: **Hybrid schemes for modeling charge current and flow in heterogeneous media**
PRESENTATION TYPE: Invited oral contribution
CONFERENCE: *OCCAM/ICFD Lattice Boltzmann workshop*
PLACE: Oxford (UK) YEAR: 2010

AUTHORS: I. Pagonabarraga
TITLE: **Hybrid schemes for modeling charge current and flow in heterogeneous media**
PRESENTATION TYPE: Invited oral contribution
CONFERENCE: *Novel Simulation Approaches to Soft Matter Systems (NSASMS-2010)*
PLACE: Dresden (Germany) YEAR: 2010

AUTHORS: I. Pagonabarraga
TITLE: **Fluctuation-induced interactions between solid inclusions in a dissipative fluid**
PRESENTATION TYPE: Invited oral contribution
CONFERENCE: *Fluctuations and Casimir forces*
PLACE: Tenerife (Spain) YEAR: 2010

AUTHORS: I. Pagonabarraga
TITLE: **Mesoscale modeling of the dynamics of charged and uncharged complex fluids**
PRESENTATION TYPE: Invited oral contribution
CONFERENCE: *Multiscale fluid dynamics with the lattice Boltzmann method*
PLACE: Leiden (The Netherlands) YEAR: 2011

AUTHORS: I. Pagonabarraga
TITLE: **Transport and pattern formation in internally driven systems**
PRESENTATION TYPE: Invited oral contribution
CONFERENCE: *Workshop on Self-Assembly*
PLACE: Barcelona (Spain) YEAR: 2011

AUTHORS: I. Pagonabarraga
TITLE: **Hydrodynamic cooperation in internally driven systems**
PRESENTATION TYPE: Invited oral contribution
CONFERENCE: *Soft Matter Cambridge-Edinburgh Meeting*
PLACE: Cambridge (England) YEAR: 2011

AUTHORS: I. Pagonabarraga
TITLE: **Transport and pattern formation in internally driven systems**
PRESENTATION TYPE: Invited oral contribution
CONFERENCE: *Mesoscale hydrodynamic simulation of non-equilibrium and driven soft-matter systems*
PLACE: Juelich (Germany) YEAR: 2011

AUTHORS: I. Pagonabarraga
TITLE: **Transport and pattern formation in actively driven systems**
PRESENTATION TYPE: Invited oral contribution
CONFERENCE: *International Conference on Statistical Physics 2011*

PLACE: Larnaca (Cyprus) YEAR: 2011

AUTHORS: I. Pagonabarraga

TITLE: **Controlled drop emission by wetting properties in driven liquid filaments**

PRESENTATION TYPE: Oral contribution

CONFERENCE: *8th Liquid Matter Conference 2011*

PLACE: Viena (Austria) YEAR: 2011

AUTHORS: I. Pagonabarraga

TITLE: **Transport and pattern formation in internally driven systems**

PRESENTATION TYPE: Invited oral contribution

CONFERENCE: *Granular and Active Fluids*

PLACE: Zaragoza (Spain) YEAR: 2011

AUTHORS: I. Pagonabarraga

TITLE: **Dynamic wetting instabilities in thin films: from fingers to drops**

PRESENTATION TYPE: Invited oral contribution

CONFERENCE: *Modeling Wetting Phenomena: From Particle Based Models to the Continuum*

PLACE: Lausanne (Switzerland) YEAR: 2011

AUTHORS: I. Pagonabarraga

TITLE: **Mesoscale modeling of electrolyte transport in heterogeneous media**

PRESENTATION TYPE: Invited oral contribution

CONFERENCE: *Conference on Molecular Simulations in Biosystems and Material Science (Simbioma 2011)*

PLACE: Konstanz (Germany) YEAR: 2011

AUTHORS: I. Pagonabarraga

TITLE: **Instabilities in Thin Capillary Films induced by Dynamic Wetting: from Fingers to Drop Emission**

PRESENTATION TYPE: Invited oral contribution

CONFERENCE: *II International Conference on Particle-Based Methods. Fundamentals and Applications (Particles 2011)*

PLACE: Barcelona (Spain) YEAR: 2011

AUTHORS: I. Pagonabarraga

TITLE: **Emerging structures in internally driven suspensions**

PRESENTATION TYPE: Invited oral contribution

CONFERENCE: *Condensed Matter and Material Physics (CMMP11)*

PLACE: Manchester (United Kingdom) YEAR: 2011

AUTHORS: I. Pagonabarraga

TITLE: **Self-organization in model active suspensions**

PRESENTATION TYPE: Invited oral contribution

CONFERENCE: *Emergent dynamics in driven colloids*

PLACE: Lausanne (Switzerland) YEAR: 2012

AUTHORS: I. Pagonabarraga

TITLE: **Electrokinetics in colloidal suspensions and under confinement**

PRESENTATION TYPE: Invited oral contribution

CONFERENCE: *New challenges in electrostatics of soft and disordered matter*

PLACE: Toulouse (France) YEAR: 2012

AUTHORS: I. Pagonabarraga

TITLE: **Collective transport and emergent phenomena in internally driven suspensions**

PRESENTATION TYPE: Invited oral contribution

CONFERENCE: *COMPLOIDS 2012 Annual Conference*

PLACE: Edinburgh (United Kingdom) YEAR: 2012

AUTHORS: I. Pagonabarraga

TITLE: Fluctuation-induced interactions between intruders in a dissipative fluid

PRESENTATION TYPE: Oral contribution

CONFERENCE: *28th International symposium on rarified gas dynamics (RGD28)*

PLACE: Zaragoza (Spain) YEAR: 2012

AUTHORS: I. Pagonabarraga

TITLE: Mesoscopic models for internally driven suspensions

PRESENTATION TYPE: Invited oral contribution

CONFERENCE: *21st International conference on discrete simulation of fluid dynamics (DSFD2012)*

PLACE: Bangalore (India) YEAR: 2012

AUTHORS: I. Pagonabarraga

TITLE: Fluctuating hydrodynamics for chemically reacting systems

PRESENTATION TYPE: Invited oral contribution

CONFERENCE: *6th International workshop on nonequilibrium thermodynamics and 3rd Lars Onsager symposium*

PLACE: Roros (Norway) YEAR: 2012

AUTHORS: I. Pagonabarraga

TITLE: Multiscale modeling of active fluids: selfpropellers and molecular motors

PRESENTATION TYPE: Invited oral contribution

CONFERENCE: *VI Spanish Supercomputing Users Meeting*

PLACE: Malaga (Spain) YEAR: 2012

AUTHORS: I. Pagonabarraga

TITLE: Emergent patterns in suspensions of self-phoretic colloids

PRESENTATION TYPE: Invited oral contribution

CONFERENCE: *Nonequilibrium collective dynamics: Bridging the gap between hard and soft materials*

PLACE: Postdam (Germany) YEAR: 2012

AUTHORS: I. Pagonabarraga

TITLE: Emergent structures in suspensions of molecular motors

PRESENTATION TYPE: Invited oral contribution

CONFERENCE: *Fluid-Structure interactions in soft-matter systems: From the mesoscale to the macroscale*

PLACE: Prato (Italy) YEAR: 2012

AUTHORS: I. Pagonabarraga

TITLE: Mesoscopic thermodynamics for driven chemical reactions and activated processes

PRESENTATION TYPE: Invited oral contribution

CONFERENCE: *Workshop Dynamics of Self-Assembly*

PLACE: Delft (The Netherlands) YEAR: 2013

AUTHORS: I. Pagonabarraga

TITLE: Lattice-Boltzmann-Langevin simulations of binary mixtures and wetting instabilities in thin fluid films

PRESENTATION TYPE: Invited oral contribution

CONFERENCE: *SIAM Conference on Computational Science and Engineering (CSE XIII)*

PLACE: Boston (USA) YEAR: 2013

AUTHORS: I. Pagonabarraga

TITLE: Emergent structures of active colloid suspensions under gravity

PRESENTATION TYPE: Oral contribution

CONFERENCE: *Physics of Complex Colloids*

PLACE: Ljubljana (Eslovenia) YEAR: 2013

AUTHORS: I. Pagonabarraga

TITLE: Wetting-induced fluid entrainment and drop emission for driven fluid filaments

PRESENTATION TYPE: Oral contribution

CONFERENCE: *5th Iberian Meeting on Colloids and Interfaces*

PLACE: Donostia (Spain) YEAR: 2013

AUTHORS: I. Pagonabarraga

TITLE: **Emergent dynamic regimes in suspensions of self-propelled and self-phoretic colloids: spontaneous clustering and jammed states**

PRESENTATION TYPE: Invited oral contribution

CONFERENCE: *7th International Discussion Meeting on Relaxations in Complex Systems*

PLACE: Barcelona (Spain) YEAR: 2013

AUTHORS: I. Pagonabarraga

TITLE: **Hybrid kinetic schemes for modeling complex fluids**

PRESENTATION TYPE: Invited oral contribution

CONFERENCE: *CECAM-PsiK Conference: Multiscale modeling from first principles 2013*

PLACE: Platja d'Aro (Spain) YEAR: 2013

AUTHORS: I. Pagonabarraga

TITLE: **Emergent structures of squirmer suspensions under gravity**

PRESENTATION TYPE: Oral contribution

CONFERENCE: *International Soft Matter Conference 2013*

PLACE: Rome (Italy) YEAR: 2013

AUTHORS: P. Magaretti and I. Pagonabarraga

TITLE: **Hydrodynamically coupled molecular motors: a route to bio-inspired microfluidic devices?**

PRESENTATION TYPE: Oral contribution

CONFERENCE: *International Soft Matter Conference 2013*

PLACE: Rome (Italy) YEAR: 2013

AUTHORS: I. Pagonabarraga

TITLE: **Emergent collective response in suspensions of molecular motors**

PRESENTATION TYPE: Invited oral contribution

CONFERENCE: *6th Giovanni Paladin Memorial: Large deviations and rare events in physics and biology*

PLACE: Rome (Italy) YEAR: 2013

AUTHORS: I. Pagonabarraga

TITLE: **Coarse grained modeling of the collective response of molecular motors**

PRESENTATION TYPE: Invited oral contribution

CONFERENCE: *Five pieces and a do in computational physics, chemistry, biology, mathematics and engineering*

PLACE: Rome (Italy) YEAR: 2013

AUTHORS: I. Pagonabarraga

TITLE: **Modeling emergent patterns in active matter: From molecular motors to microswimmer suspensions**

PRESENTATION TYPE: Invited oral contribution

CONFERENCE: *VI International Conference BIFI 2014 Exploring the role of computation in Science: from Biology to Physics*

PLACE: Zaragoza (Spain) YEAR: 2014

SEMINARS

TITLE: **Efectos de los contornos en el espectro de luz en fluidos fuera de equilibrio**

ACT:Seminar

INSTITUTION: Physics Faculty (University of Barcelona)

YEAR: 1990

TITLE: **Hydrodynamic aspects of the adsorption process**

ACT: Seminar

INSTITUTION: Mini simposium "Latex Particles Adsorbed on Surfaces", Gorlaeus Laboratoria (Universiteit Leiden)

YEAR: 1993

TITLE: **Aspectos hidrodinámicos and termodinámicos de la cinética de adsorción**

ACT: Seminar

INSTITUTION: Physics Faculty (University of Barcelona) YEAR: 1993

TITLE: **Kinetics and structure in the adsorption of colloidal suspensions**

ACT:Seminar

INSTITUTION: *Instituut-AMOLF*, Amsterdam (Holanda) YEAR:1995

TITLE: **Hydrodynamic effects on the adsorption of colloidal particles**

ACT:Seminar

INSTITUTION: Mini simposium "Latex Particles Adsorbed on Surfaces", Gorlaeus Laboratoria (University ofLeiden)

YEAR: 1995

TITLE: **Transport effects on the adsorption of colloidal particles on solid surfaces**

ACT:Seminar

INSTITUTION: *Gorlaeus Laboratoria* (University ofLeiden), Leiden (The Netherlands)

YEAR:1996

TITLE: **Does friction ever become normal?**

ACT:Seminar

INSTITUTION: *Instituut-AMOLF*, Amsterdam (The Netherlands)

YEAR: 1997

TITLE: **Short-time dynamics of confined colloidal suspensions**

ACT:Seminar

INSTITUTION: *Max-Planck-Institut for Colloids and Interfaces*, Teltow (Germany).

YEAR: 1998

TITLE: **Does short-time diffusion ever become normal?**

ACT:Seminar

INSTITUTION: University of Edinburgh (UK).

YEAR: 1999

TITLE: **Dinámica de coloides en presencia de interfases**

ACT:Seminar

INSTITUTION: *Universitat Rovira i Virgili* (Spain)

YEAR: 1999

TITLE: **Inhomogeneous polydisperse fluids and how to deal with them**

ACT:Seminar

INSTITUTION: University of Edinburgh (UK).

YEAR: 1999

TITLE: **Polydisperse fluids: From bulk to interfacial behavior.**

ACT:Seminar

INSTITUTION: University of Oxford (UK).
YEAR: 2000

TITLE: **Equilibrium polydisperse fluids.**
ACT:Seminar
INSTITUTION: Heriot-Watt University (Edinburgh, UK).
YEAR: 2000

TITLE: **Descomposición espinodal en mezclas binarias. Más allá del escalado dinámico?**
ACT:Seminar del C.E.R. en "Física de Sistemonth Complexos"
INSTITUTION: University of Barcelona (Spain).
YEAR: 2001

TITLE: **Dinámica de un fluido granular agitado**
ACT:Seminar
INSTITUTION: University of Sevilla (Spain).
YEAR: 2001

TITLE: **The role of polydispersity in soft condensed matter**
ACT:Seminar
INSTITUTION: University of París-Sud (France).
YEAR: 2002

TITLE: **Equilibrium and out-of-equilibrium properties of polydisperse materials.**
ACT:Seminar
INSTITUTION: Ecole Normale Superieure de Lyon (France).
YEAR: 2002

TITLE: **Mesoscopic modeling of the hydrodynamics of complex fluids.**
ACT:Seminar
INSTITUTION: University of Bayreuth (Germany).
YEAR: 2003

TITLE: **Correlaciones hidrodinámicas en fluidos monthoscópicos.**
ACT:Seminar
INSTITUTION: University Complutense de Madrid (Spain).
YEAR: 2004

TITLE: **Hydrodynamic effects in the dynamics of semiflexible filaments.**
ACT:Seminar
INSTITUTION: Ecole Superieure de Physico-Chimie Industrielle de Paris (París, France).
YEAR: 2005

TITLE: **Hydrodynamic correlations in monthoscopic fluids**
ACT:Seminar
INSTITUTION: Max Planck Institute for Polymers (Mainz, Germany).
YEAR: 2005

TITLE: **Colloidal hydrodynamics at fluid interfaces**
ACT:Seminar
INSTITUTION: University of Southern Denmark (Odense, Denmark).
YEAR: 2006

TITLE: **Mesoscopic modelling of biocolloidal hydrodynamics**
ACT:Seminar
INSTITUTION: Edinburgh University Biological Physics Meeting (Edinburgh, UK).
YEAR: 2006

TITLE: **Mesostructures in nanocolloidal suspensions**

ACT:Seminar
INSTITUTION: University of Debrecen (Hungary)
YEAR: 2006

TITLE: **Internally driven colloids: structure and kinetics**
ACT:Seminar
INSTITUTION: Institute Josef Stefan, Ljubljana (Eslovenia)
YEAR: 2007

TITLE: **Hidrodinámica and cinética en modelos granulares simples**
ACT:Seminar
INSTITUTION:University of Navarra, Pamplona (Spain)
YEAR: 2007

TITLE: **Coloides propulsados internamente: estructura and cinética**
ACT:Seminar
INSTITUTION: University Nacional de Educación a Distancia, Madrid (Spain)
YEAR: 2007

TITLE: **Structure and kinetics of internally driven fluids: from passive to self propelling particles**
ACT:Seminar
INSTITUTION: University Federal do Rio Grande do Sul, Porto Alegre (Brazil)
YEAR: 2008

TITLE: **An even coating on an uneven substrate: Controlling thin liquid films on heterogeneous surfaces**
ACT:Seminar
INSTITUTION: Bristol University, Bristol (UK)
YEAR: 2009

TITLE: **Mesoscopic modeling of internally driven complex fluids**
ACT: Seminar
INSTITUTION: Indian Institute of Technology, Chennai (India)
YEAR: 2009

TITLE: **Control and structure formation in internally driven complex fluids**
ACT: Seminar
INSTITUTION: Institut ICMA-B-MATGAS, Bellaterra (Spain)
YEAR: 2009

TITLE: **Active microswimmers : From individual motion to collective structures**
ACT: Seminar
INSTITUTION: Université Paris VI, Paris (France)
YEAR: 2009

TITLE: **Dynamic wetting instabilities in thin fluid films. From fingers to drops**
ACT: Seminar
INSTITUTION: Indian Institute of Technology, Chennai (India)
YEAR: 2010

TITLE: **Dynamic wetting instabilities in thin fluid films. From fingers to drops**
ACT: Seminar
INSTITUTION: Carlos III University, Leganes (Spain)
YEAR: 2011

TITLE: **Electrokinetic modeling: from simple to complex media**
ACT: Seminar
INSTITUTION: Indian Institute of Technology, Chennai (India)
YEAR: 2011

TITLE: Transport and pattern formation in internally driven systems

ACT: Seminar

INSTITUTION: University of Vigo (Spain)

YEAR: 2011

TITLE: Mesoscopic modeling of complex fluid dynamics

ACT: Seminar

INSTITUTION: Accelrys, Cambridge (United Kingdom)

YEAR: 2012

TITLE: Emerging structures in interacting active systems

ACT: Seminar

INSTITUTION: Autonomous University Bellaterra (Spain)

YEAR: 2012

TITLE: Interacting bacterial colonies: New routes to pattern formation

ACT: Seminar

INSTITUTION: Polytechnic University of Catalunya (Spain)

YEAR: 2012

TITLE: Emergent patterns in suspensions of self-phoretic colloids

ACT: Seminar

INSTITUTION: Forschungszentrum Juelich (Germany)

YEAR: 2012

TITLE: Collective properties and emergent structures in active matter

ACT: Seminar

INSTITUTION: University of Montpellier (France)

YEAR: 2013

TITLE: Emerging structures in active matter

ACT: Seminar

INSTITUTION: Eindhoven Technical University (The Netherlands)

YEAR: 2013

TITLE: Emerging patterns in active matter

ACT: Seminar

INSTITUTION: University of Lancashire, Preston (United Kingdom)

YEAR: 2013

TITLE: Modelización mesoscópica de fluidos complejos en entornos heterogéneos

ACT: Seminar

INSTITUTION: Repsol Research Center, Móstoles (Spain)

YEAR: 2013

TITLE: Emergent patterns in active matter: From molecular motors to microorganism colonies

ACT: Seminar

INSTITUTION: Institut de Bioenginyeria de Catalunya (IBEC), Barcelona (Spain)

YEAR: 2013

TITLE: Emergent dynamic regimes in active suspensions: spontaneous and forced structures

ACT: Seminar

INSTITUTION: Ecole Supérieure de Physique et Chimie Industrielles de la Ville de Paris (ESPCI Paris Tech), Paris (France)

YEAR: 2013

TITLE: Emergent structures in the collective dynamics of molecular motors

ACT: Seminar

INSTITUTION: Universiteit van Amsterdam (UvA), Amsterdam (The Netherlands)

YEAR: 2013

TITLE: **Efficient collective dynamics of molecular motors**

ACT: Seminar

INSTITUTION: University of Edinburgh, Edinburgh (United Kingdom)

YEAR: 2014

SUPERVISED DOCTORAL THESIS

TITLE: Lattice-Boltzmann simulations of driven transport in colloidal systems

STUDENT: F. Capuani (Co-directed with Prof. D. Frenkel)

UNIVERSITY: University of Amsterdam FACULTY/SCHOOL: Natuurwetenschappen, Wiskunde en Informatica

YEAR: 2004

MARK: Excelente Cum Laude

TITLE: Hydrodynamic cooperativity in micro-swimmer suspensions

STUDENT: I. Llopis

UNIVERSITY: University of Barcelona FACULTY/SCHOOL: Physics faculty

YEAR: 2008

MARK: Excelente Cum Laude por unanimidad

TITLE: Hydrophobicity in capillary flows: Dynamics and stability of menisci, thin films and filaments in confined geometries.

STUDENT: R. Ledesma (co-directed with Dra. A. Hernández-Machado)

UNIVERSITY: University of Barcelona FACULTY/SCHOOL: Department de Física Fonamental

YEAR: 2009

MARK: Excelente Cum Laude por unanimidad

TITLE: Hydrodynamic effects in externally and internally driven particle suspensions: fluctuation-induced forces, active settling and bacterial patterns

STUDENT: R. Matas-Navarro

UNIVERSITY: University of Barcelona FACULTY/SCHOOL: Department de Física Fonamental

YEAR: 2012

MARK: Excelente Cum Laude por unanimidad

TITLE: Facing the environment: hydrodynamics and confinement modulate molecular motor dynamics STUDENT:

P. Margaretti

UNIVERSITY: University of Barcelona FACULTY/SCHOOL: Department of Fundamental Physics

YEAR: 2013

MARK: Excelente Cum Laude por unanimidad

TITLE: Microfluidics with vesicle suspensions STUDENT: G. Rodríguez-Lázaro (co-supervised with Prof. Aurora Hernández-Machado)

UNIVERSITY: University of Barcelona FACULTY/SCHOOL: Department of Fundamental Physics

YEAR: under development

MARK:

TITLE: Collective motion of swarming microorganisms and microrobots STUDENT: F. Alarcón Oseguera

UNIVERSITY: University of Barcelona FACULTY/SCHOOL: Department of Fundamental Physics

YEAR: under development

MARK:

SUPERVISED MASTER THESIS

TITLE: Hydrodynamics of colloidal suspensions from dissipative particle dynamics

STUDENT: M. West

UNIVERSITY: University of Utrecht (The Netherlands) FACULTY/SCHOOL: Physics Faculty

YEAR: 1998

MARK: Cum Laude

TITLE: Modelling collective transport along microtubules.

STUDENT: D. Houtman (Socrates Visit)

UNIVERSITY: University of Barcelona FACULTY/SCHOOL: Physics Faculty

YEAR: 2003

MARK: Cum Laude

SCIENTIFIC MANAGEMENT AND R+D ACTIVITY ORGANIZATION

TITLE: CECAM Workshop *Experimentalist-modeling interactions: New trends on modeling granular flows*

ACTIVITY TYPE: Organizer CONTEXT: International

PLACE: Lyon (France)

YEAR: 2004

TITLE: Workshop from the thematic network "Complex Systems"

ACTIVITY TYPE: Organizer CONTEXT: International

PLACE: Barcelona (Spain)

YEAR: 2006

TITLE: ESF Exploratory Workshop *Physics of the Cell: From Single Molecules to Collective Behaviour*

ACTIVITY TYPE: Organizer CONTEXT: International

PLACE: Barcelona (Spain)

YEAR: 2006

TITLE: CECAM Workshop *Common trends between Kinetic theory, Dynamical Density Functional methods and mesoscopic methods based on effective free energy models*

ACTIVITY TYPE: Organizer CONTEXT: International

PLACE: Lausanne (Switzerland)

YEAR: 2008

TITLE: Workshop *Meeting of the Network Physics of Systems Out of Equilibrium*

ACTIVITY TYPE: Organizer CONTEXT: National

PLACE: Barcelona (Spain)

YEAR: 2009

TITLE: Meeting on Statistical Physics (FisEs)

ACTIVITY TYPE: Member of Scientific Committee CONTEXT: National

PLACE: Spain

YEAR 2009-

TITLE: Liquid Matter Conference

ACTIVITY TYPE: Member of the International Advisory Board CONTEXT: International

PLACE: Spain

YEAR 2010-

TITLE: Spanish Journal of Physics of the Spanish Royal Society

ACTIVITY TYPE: Member of the Editorial Board CONTEXT: National

PLACE: Spain

YEAR 2010-

TITLE: CECAM Council

ACTIVITY TYPE: Representative of the Spanish Government CONTEXT: International

PLACE: Spain

YEAR 2010-

TITLE: 6th International Workshop on Non-Equilibrium Thermodynamics (IWNET)

ACTIVITY TYPE: Member of Scientific Committee CONTEXT: International

PLACE:

YEAR: 2010-

TITLE: Workshop on Self-Assembly

ACTIVITY TYPE: Organizer CONTEXT: National

PLACE: Barcelona (Spain)

YEAR: 2011

TITLE: Meeting of the Spanish Network on Non-equilibrium physics

ACTIVITY TYPE: Organizer CONTEXT: National

PLACE: Barcelona (Spain)

YEAR: 2011

TITLE: CECAM Workshop: New Challenges for the Simulation of Electrokinetic Phenomena

ACTIVITY TYPE: Organizer CONTEXT: International
PLACE: Paris (France) YEAR: 2011

TITLE: Statistical Physics Meeting (FisEs 11)

ACTIVITY TYPE: Organizer CONTEXT: National
PLACE: Barcelona (Spain) YEAR: 2011

TITLE: CECAM Workshop: Multiscale modeling of simple and complex liquid flow using particle-continuum hybrids

ACTIVITY TYPE: Organizer CONTEXT: International
PLACE: Zaragoza (Spain) YEAR: 2011

TITLE: Member of the Editorial Committee of European Journal of Physics E

ACTIVITY TYPE: Editorial Board CONTEXT: International
PLACE: Germany YEAR: 2012-

TITLE: Sitges Conference 'Understanding and managing randomness in physics, chemistry and biology'

ACTIVITY TYPE: Member of the Organizing Committee CONTEXT: International
PLACE: Sitges (Spain) YEAR: 2012

TITLE: CECAM Workshop 'Mechanisms driving the organization of intra-cellular organelles'

ACTIVITY TYPE: Organizer CONTEXT: International
PLACE: Zaragoza (Spain) YEAR: 2012

TITLE: Evaluation Panel of the Thematic Area of Physics of the Spanish Ministry of Economy and Competitiveness (MINECO)

ACTIVITY TYPE: Expert of the Selection Panel CONTEXT: National
PLACE: Madrid (Spain) YEAR: 2012

TITLE: 9th Liquid Matter Conference

ACTIVITY TYPE: Member of the International Advisory Board (IAB) CONTEXT: International
PLACE: Lisbon (Portugal) YEAR: 2012-

TITLE: CECAM Workshop: Structure, functionalization and dynamics of fluid interfaces

ACTIVITY TYPE: Organizer CONTEXT: International
PLACE: Zaragoza (Spain) YEAR: 2012

TITLE: Evaluation of Young Researchers at Research Institute 'Forschungszentrum Jülich'

ACTIVITY TYPE: Member of the Expert Panel CONTEXT: International
PLACE: Jülich (Germany) YEAR: 2012

TITLE: Access Committee to Spanish Supercomputing facilities

ACTIVITY TYPE: Member of the Expert Panel CONTEXT: International
PLACE: Barcelona (Spain) YEAR: 2013-

TITLE: Habilitation Panel to direct researchers at Université Claude Bernard Lyon

ACTIVITY TYPE: Member of the Expert Panel CONTEXT: International
PLACE: Lyon (France) YEAR: 2013

TITLE: Editorial Board of Frontiers Physics

ACTIVITY TYPE: Member of the Editorial Board CONTEXT: International
PLACE: Switzerland YEAR: 2013

TITLE: Managing Committee of COST Action "Flowing Matter" (MP1305)

ACTIVITY TYPE: Member of Managing Committee CONTEXT: International

PLACE: Brussels (Belgium)

YEAR: 2014-

TITLE: German Science Foundation Program SPP1726, "Microswimmers: From Single Particle Motion to Collective Behavior"

ACTIVITY TYPE: Member of International Expert Panel CONTEXT: International

PLACE: Bonn (Germany)

YEAR: 2014-

TITLE: International Conference on Statistical Physics

ACTIVITY TYPE: Member of the International Advisory Board CONTEXT: International

PLACE: Spain

YEAR 2014-

FACILITIES USED

Clave: R: responsible, UA: regular user, UO: accidental user.

EQUIPMENT:HP900/715-720-730	DATE:1992-95	TYPE: UA.
EQUIPMENT:CRAY	DATE:1993-95	TYPE: UA.
EQUIPMENT:Indy/Silicon	DATE:1996-99	TYPE: UA.
EQUIPMENT:CRAY Y-MPC916	DATE:1996-99	TYPE: UA.
EQUIPMENT:IBM RS/60!00 SP	DATE:1996-99	TYPE: UA.
EQUIPMENT:Digital DEC 3000	DATE:1999-2000	TYPE: UA.
EQUIPMENT:Sun HPC 3500	DATE:1999-2001	TYPE: UA.
EQUIPMENT:Sun Enterprise 3000	DATE:1999-2001	TYPE: UA.
EQUIPMENT:CRAY T3E-1200	DATE:1999-	TYPE: UA.
EQUIPMENT:SGI Origin 2000	DATE:1999-	TYPE: UA.
EQUIPMENT: PentiumIII 700	DATE:2000-	TYPE: UA.
EQUIPMENT: IBMS2	DATE:2000-	TYPE: UA.
EQUIPMENT: HPV2500/N4000	DATE:2000-	TYPE: UA.
EQUIPMENT: CLUSTER BEOWULF 11 PC	DATE:2002-2004	TYPE: R.
EQUIPMENT: CLUSTER BEOWULF 50 PC	DATE:2004-2007	TYPE: R.
EQUIPMENT: CLUSTER BEOWULF 65 PC	DATE:2008-2009	TYPE: R.
EQUIPMENT: MARE NOSTRUM	DATE:2006-	TYPE: UA.
EQUIPMENT: CLUSTER RACK 90 CPU	DATE:2009-	TYPE: R.
EQUIPMENT: CLUSTER 12 GPU	DATE:2010-	TYPE: R.

STAY SUPERVISOR

- Dr. K. Stratford (Edinburgh University, UK), HPC stay 1 month (2003 and 2004)
- Prof. E. Trizac (university Paris-Sud, France), visiting professor 2 weeks (2004)
- Prof. L. Bocquet (University of Lyon, France), visiting professor 2 weeks (2004)
- Prof. A.A. Louis (University of Cambridge, UK) , visiting professor 2 weeks (2005)
- Dr. R.Cruz Hidalgo, Juan de la Cierva researcher, 2005-2006
- Dr. Samy Merabia, postdoctoral stay 2005-2007
- Prof. M.H. Ernst (University of Utrecht, The Netherlands), 3 month stay, invited professor (2005)
- Dr. F. Kun (University of Debrecen, Hungary), stays of 3 weeks in 2006 and 3 weeks in 2007.
- Dr. Sudipto Muhuri, postdoctoral stay 2007-2009
- Dr. Antoni Valencia, postdoctoral stay 2007-2008
- Sr. J. Castella, DEA stay (universite Paris-Sud IX, Orsay) 2007
- Dr. G. Giupponi, Postdoctoral stay Marie Curie, 2008-2010
- Sra. A. Godoy-Lorite, Grant Holder (Scholarship to initiation in research) 2009-2010
- Dr. A. Scagliarini, postdoctoral stay 2010-2012
- Sra. Laia Casamiquela, (Scholarship to initiation in research, MINECO) 2011-2012

OTHER ACTIVITIES

- Accreditation ANECA as University Professor (*Catedrático de University*) (2008-004160)
- Accreditation Advanced Research, Generalitat of Catalonia 2005
- Distinción de la Generalitat de Catalunya “joven investigador”, 2004.

- Academic Secretary of the *Department of Fundamental Physics* 2004 - 2011
- Member of the Academic commission of the Physics Faculty (2005-2011)
- Member of the commission of the master studies of the Physics Faculty (2005-2008)
- Member of the commission of the interuniversity master in applied and computational physics (2005-2009)
- Member of the commission of the master in biophysics (2005-)
- ”Doctoral award ”1996 (University of Barcelona).
- European Doctor degree 1996 (University of Barcelona).
- User of the supercomputing facility ’*Mare Nostrum*’, from *Barcelona Supercomputer Center* since 2006.
- ’*Oustanding Referee*’ of the American Physical Society (2011)
- Member of the evaluation Committee for *Ramon y Cajal* and *Juan de la Cierva* Contracts (ANEP), 2009
- Project referee from EPSRC (United Kingdom), 2006.
- Project referee from AGAUR (Generalitat de Catalunya), 2006-
- Project referee from ANEP 2007-
- Project referee from French National Agency for Research (ANR) in the program Nanosciences and Nanotechnologies (PNANO) 2006-
- Project referee from European Science Foundation (ESF), 2007-
- Project referee from Hungarian Research Agency (OTKA Iroda), 2009
- Project referee from Junta of Andalucía, 2009-
- Project referee from Junta of Castilla and León, 2009-
- Coordinator of the interuniversity master in applied and computational physics(2005-2008)
- Responsible of the section ”Physics and Computation.”of the Journal of the Physical Spanish Royal Society 2010-
- *Referee* from American Institute of Physics (Physical Review Letters, Physical Review E and Journal of Chemical Physics), Institute of Physics (Journal of Physics A, C and D, Inverse Problems), Physica A, Proceedings of the Royal Society A, Journal of Statistical Physics: Theory and Experiments, Multiscale Modelling and Simulations, Biophysics Journal, Langmuir, Europhysics Letters, European Physical Journal E.
Referee of the conference “18th International Conference on Efficiency, Cost, Optimization, Simulation and Environmental Impact of Energy Systems” (Ecos2005).
- Courses
 - Invited professor at Universitat Rovira i Virgili, Tarragona, to deliver the graduate course “Física de Polímeros”.

- Invited professor at Espoo, Finland, June 2002 , to participate at the Summer School “SoftSimu 2002” .
 - Organizer and Teacher of the Tutorial ”Mesoscopic Modelling.” at CECAM, Lyon (France), 2006
 - Invited professor at University Nacional de Educación a Distancia, Madrid (Spain), June 2007 , to deliver the graduate course “Métodos computacionales mesoscópicos: de los líquidos simples a los fluidos complejos” .
 - Graduate Course ”Mesoscopic computational methods. From simple to complex fluids’ at University Federal do Rio Grande do Sul, Porto Alegre (Brazil) May 2008.
 - Invited Graduate Course in the program ’Statistical Physics of active matter: from passive to active materials” . Technical University of Berlin, 2010.
 - Cursus de doctorado invitado ’*Mesoscopic computational methods: Coarse grained dynamics*’ in the First Computational Physics School (Les Houches, France), 2011
 - Invited Graduate Course ’*Soft active matter: from molecules to organisms*’ in the Summer School ”Mechanics and Thermodynamic of Soft Active Matter” (Sperlonga, Italy), 2012
- Grants:
 - PhD Grant holder from Ministerio de Educación and Ciencia, para la realización de la Tesis Doctoral. 1990-1993.
 - Grant for Initiation in research from CIRIT, Generalitat from Catalonia. 1992.
 - Marie Curie Grant Holder at AMOLF Institute (The Netherlands) 1996-1998
 - Reincorporation Research Contract , Ministerio de Educación and Ciencia, Spain (2000).
 - “TRACS visitor” at *EPCC* (Edinburgh Parallel Computing Center) (2000, 2001, 2002).
 - Invited Professor University Paris-Sud, Orsay, France (2002).
 - Invited Professor University Claude Bernard, Lyon, France (2005).
 - Invited Professor University Paris-Sud, Orsay, France (2009).
 - Colaborator in the organization of the “Sitges Conferences” Series :
 - XXV Years of non-equilibrium statistical mechanics (1994);
 - Complex behavior in glassy systems (1996);
 - Statistical mechanics of biocomplexity (1998);
 - Jamming, yielding and irreversible deformation in condensed matter (2004) (Scientific committee)