

ABBREVIATED CV

Organization: Stuttgart Universität.

Institute: ICP (Institute for Computational Physics)

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Professional category: Researcher Contract full time.

ACADEMIC TRAINING

<u>Master Degrees</u>	<u>Center</u>	<u>Year</u>
<i>Physics (Llicenciatura)</i>	Universitat de les Illes Balears	1998
<i>Chemistry (Llicenciatura)</i>	Universitat de les Illes Balears	2003
<u>Doctorate</u>	<u>Center</u>	<u>Year</u>
<i>Doctor en Ciències (Physics), Excel.lent Cum Laude (highest possible qualification)</i>	Universitat de les Illes Balears	2005

PREVIOUS SCIENTIFIC AND/OR TEACHING POSITIONS

<u>Activity</u>	<u>Center/Institution</u>	<u>Year</u>
Research contract via FECYT at FIAS. Category within FIAS: Junior Fellow of the FIAS	FIAS - Frankfurt Institute for Advanced Studies	2008/2009
Postdoctoral MEC grant to do research at FIAS. Category within FIAS: Junior Fellow of the FIAS	FIAS - Frankfurt Institute for Advanced Studies	2007/2008
Researcher. Junior Fellow of the FIAS	FIAS - Frankfurt Institute for Advanced Studies	2006/2007
Ajudant d'Universitat (assistant instructor)	Dept. Física, Universitat de les Illes Balears	2003/2006
Collaboration grant from UIB associated to the project SINFIBIO,BFM2001-0341-C02-01.	Universitat de les Illes Balears – IMEDEA (CSIC-UIB)	2002/2003
Grant from the FSE (European Social Found) for the integration of scientific personnel to research centres in the Balearic Island.	Universitat de les Illes Balears – IMEDEA (CSIC-UIB)	2001/2002

Accreditations and awards

- Positive review from the National Spanish Agency for Quality and Accreditations (ANECA) in (Feb, 2009) for the positions of: “Contratado Doctor” (=Associate Professor) , “Professor de Universidad privada” (Private University lecturer), and “Ayudante Doctor” (Assistant Professor).
- First Class Honours distinction award in Chemistry 2003 from The Balearic Islands University [“Premi Extraordinari de Llicenciatura 2003, Química”. Universitat de les Illes Balears].

Publications or Scientific-technical documents

(a) Journal publications (period 2003-present, authors by order of signature)

1. Cerdà J.J.; Sintes, T.; Toral, R., *"Pair Interaction between end-grafted polymers onto spherical layers: a monte Carlo Study"*. *Macromolecules*, 36(4), 1407-1413 (2003)
2. Cerdà J.J., Tomas Sintes, C. M. Sorensen, A. Chakrabarti, *"Kinetics of phase transformations in depletion-driven colloids"*. *Physical Review E Phys. Rev. E*, 70, 011405, (2004).
3. Cerdà J.J., Tomas Sintes, C. M. Sorensen, A. Chakrabarti, *"Structure factor scaling in colloidal phase separation"*, *Physical Review E Phys. Rev. E*, 70, 051405, (2004).
4. Cerdà J.J.; Sintes, T.; Sumithra, K., *"Adsorption of Semiflexible Block-Copolymers on Homogeneous Surfaces"*, *Journal of Chemical Physics JCP*, 123, 204703, (2005).
5. Cerdà J.J., Tomas Sintes, A. Chakrabarti, *"Excluded volume effects on Polymer Chains confined to spherical surfaces"*, *Macromolecules*, 38, 1469-1477, (2005).
6. Cerdà J.J., Tomas Sintes, *"Stiffed polymer adsorption. Onset to pattern recognition"*, *Biophysical Chemistry*, 115, 277-283, (2005).
7. Ballenegger, V.; Cerdà, J.J.; Lenz, O.; Holm, Ch., *"The optimal P3M algorithm for computing electrostatic energies in periodic systems"*, *Journal of Chemical Physics JCP*, 128 (3), 034109, (2008)
8. Cerdà, J.J.; Ballenegger, V.; Lenz, O.; Holm, Ch., *"P3M algorithm for dipolar interactions"*, *J. Chem. Phys.*, 129, 234104, (2008).
9. Cerdà, J.J.; Kantorovich, S.; Holm, Ch., *"Aggregate formation in ferrofluid monolayers: simulations and theory"*, *Physics-Condensed Matter*, 20 (20), 204125, (2008).
10. Cerdà, J.J.; Sintes, T.; Holm, C.; Sorensen, C.; Chakrabarti, A., *"Shear effects on crystal nucleation in colloidal suspensions"*, *Phys. Rev. E*, 78, 031403, (2008).
11. Kantorovich S., Cerdà J.J., Holm C., *"Microstructure analysis of monodisperse ferrofluid monolayers: theory and simulation"*, *Phys Chem Chem Phys*, 10 (14), 1883-1895, (2008).
12. Pyanzina E., Kantorovich S., Cerdà J.J., Holm C., *"How to analyze the structure factor in ferrofluids with strong magnetic interactions"*, *Molecular Physics*, 107, 571-590, (2009).
13. Ballenegger V., Arnold A., and Cerdà J.J. "Simulations of non-neutral slab systems with long-range electrostatic interactions in 2D periodic boundary conditions". *J. Chem. Phys.*, 131, 094107, (2009).
14. Cerdà J.J., Tomas Sintes, and Raul Toral. *"Spherical Brushes within cavities: a self-consistent field and Monte-Carlo Study"*. *Journal of Chemical Physics*, 131, 134901, (2009).
15. Cerdà J.J., B. Qiao, C. Holm, *"Understanding Polyelectrolyte Multilayers: an open challenge for simulations."*, *Soft Matter*, 5, 4412, (2009).

16. Cerdà J.J., B. Qiao, C. Holm, “*Modeling Strategies for Polyelectrolyte Multilayers*”. Eur. Phys. J. Spec. Topics, 177, 129, (2009).
17. Cerdà J.J., E. Elfimova, V. Ballenegger, E. Krutikova, A. Ivanov, C. Holm. “*Behaviour of bulky ferrofluids in the diluted low coupling regime: theory and simulation*”. (at referee stage in Phys. Rev. E.).

(b) Books and chapters of books (period 2003-present, authors by order of signature)

- Chapter of book: Cerdà J.J., T. Sintes, R. Toral, “Interaction of colloidal particles bearing grafted polymer chains onto their surfaces”, in “Coloides e interfases”. Ed. L. M. Liz, M. Arzán, P. Hervés. Servicio de publicaciones Universidad de Vigo, Vigo (Spain)., 2003. ISBN: 84-8158-242-5

(c) Conference Proceedings (period 2003-present, authors by order of signature)

- Cerdà, J.J.; Kantorovich, S.; Holm, Ch., “Structure formation and phase behaviour in ferrofluid monolayers: theory and computer simulations”, Proceedings in Applied Mathematics and Mechanics PAAM, 7 (1) , 4140021, (2008)
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