



## Doru-Cosmin Constantin

**Nationality:** Romanian, French

**Date of birth:** 20/11/1975

**Gender:** Male

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### ABOUT ME

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I study soft matter systems, mainly using synchrotron-based x-ray scattering techniques. Over the last few years I have focused on the synthesis and assembly of noble metal nanoparticles, on time-resolved measurements and on full-curve fitting strategies in order to extract the most information from the experimental data. I am also interested in low-dimensional colloidal systems, especially in the coupling of different types of order (which is why I spent a lot of time working on doped lamellar phases) as well as in their mechanical and rheological properties.

### WORK EXPERIENCE

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#### Chargé de recherche (researcher)

*CNRS* [ 01/10/2005 – Current ]

City: Orsay

Country: France

#### Chargé de recherche associé (fixed-term researcher)

*CNRS* [ 01/02/2005 – 31/07/2005 ]

City: Lyon

Country: France

#### Marie Curie fellow

*Göttingen University* [ 11/2002 – 31/01/2005 ]

City: Göttingen

Country: Germany

#### Allocataire de recherche (research assistant)

*École Normale Supérieure de Lyon* [ 01/10/1999 – 30/09/2002 ]

City: Lyon

Country: France

### EDUCATION AND TRAINING

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#### Habilitation to direct research

*Université Paris-Sud* [ 20/06/2011 ]

#### PhD in Physics

*École Normale Supérieure de Lyon* [ 11/07/2002 ]

## LANGUAGE SKILLS

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Mother tongue(s):

Romanian

### French

LISTENING: C2 READING: C2 UNDERSTANDING: C2

SPOKEN PRODUCTION: C2

SPOKEN INTERACTION: C2

### English

LISTENING: C2 READING: C2 UNDERSTANDING: C2

SPOKEN PRODUCTION: C2

SPOKEN INTERACTION: C2

## MANAGEMENT AND LEADERSHIP SKILLS

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### Team management

2015-2020 Co-director of the MATRIX research team (about 30 researchers, technical staff and students.)

### Project management

2013-2016 Coordinator of project MEMINT (financed by the ANR), involving four research teams in the Paris area.

### Committee work

2015-2020 Elected member of the laboratory council.

2017- Co-organiser of a work group on "metrology in complex media".

2017- Member of beamtime allocation panel C08 at the ESRF.

## PUBLICATIONS

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### Journal papers

About 60 peer-reviewed papers in international journals. The complete list (with preprints) is available at:

<https://www.equipes.lps.u-psud.fr/constantin/spip.php?article939&lang=en>

[Google Scholar profile](#)

[ResearchGate profile](#)

### Book chapters

(with Anne-Florence Bitbol and Jean-Baptiste Fournier)

#### Membrane-Mediated Interactions in

[Physics of Biological Membranes](#)

edited by Patricia Bassereau and Pierre Sens, Springer International Publishing, 2018. ISBN 978-3-030-00630-3

#### Topological evolution in the ordered and isotropic phases of a lyotropic system in

[Phase Transitions. Applications in Liquid Crystals, Organic Electronic and Optoelectronic Fields](#)

edited by Vlad Popa-Nita, Research Signpost, Kerala, India, 2006. ISBN 81-308-0062-4

## Translations

### **Liquid crystals: Concepts and Physical Properties Illustrated by Experiments**

by Patrick Oswald and Pawel Pieranski (translated from the French by Doru Constantin)

Taylor & Francis; CRC Press 2005

Vol. I : Nematic and Cholesteric Liquid Crystals (648 pages)

Vol. II : Smectic and Columnar Liquid Crystals (712 pages)

## Rheophysics

by Patrick Oswald (translated from the French by Doru Constantin)

Cambridge University Press, 2009.

## **CONFERENCES AND SEMINARS**

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### Recent talks

**Jan. 2020** Journées Surfaces et Interfaces (Paris)

*Exploring the organisation of nano-objects at interfaces by x-ray scattering (invited)*

**Sept. 2019** 33rd Conference of the European Colloid and Interface Society (Louvain)

*Growth kinetics of bimetallic nanoparticles followed by in situ techniques (keynote)*

**Nov. 2018** France-Japan Workshop on Functional Nanomaterials and Soft Materials (Orsay)

*Phase transition in a colloidal membrane (invited)*

**June 2018** Nanometrology 2018 (Paris)

*Probing lipid membrane nano-mechanics (invited)*

**Dec. 2017** 7èmes Rencontres Annuelles en Nanométrie (Lyon)

*Modulation of the stacking state and of the orientation of confined nano-platelets (invited)*