

# **IBS special lecture series: Introduction to Advanced & Emerging Biophysical Methods for Integrative Biology**

Place: Main seminar room at Institut de Biologie Structurale (for directions, [www.ibs.fr](http://www.ibs.fr))

Dates: 2015-2016, Wednesday 1-2 pm + questions

Language: English

Aim: Learn the theoretical bases and practical applications of methods in use at the IBS from expert users.

Organizers: M Vivaudou, IBS/Channels; D Bourgeois, IBS/Dynamop

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The lectures are public. A pass is required to enter the EPN campus where IBS is located. To obtain this pass, send us your details (First & last names, date & place & country of birth, gender, citizenship, employer/university) 3 days in advance, and bring a valid ID.

PhD students: Attendance to each series of 10 lectures will earn you credits (contact your doctoral school for details) provided you are registered and sign up the presence sheet available from the speakers. To register, please contact Michel Vivaudou by mail or on site.

## **Series I**

### **2015 January-June**

1. **Protein engineering, heterologous expression, purification**, Eve de Rosny: 28 January
2. **Molecular Modeling & Dynamics**, Benjamin Bouvier: 25 february
3. **Membrane proteins**, Cécile Breyton: 4 March
4. **Cellular electron cryomicroscopy and tomography**, Winnie Ling: 11 March
5. **Single-particle electron microscopy and reconstruction**, Christiane Schaffitzel: 18 March
6. **Non-covalent mass spectrometry**, Elisabetta Boeri: 1 April
7. **Mass spectrometry with H/D Exchange**, Eric Forest: 29 April
8. **Surface Plasmon Resonance**: Nicole Thielens: 6 May
9. **Super-resolution fluorescence microscopy**, Virgile Adam: 20 May
10. **Electrophysiological techniques for membrane proteins**, Michel Vivaudou: 10 June
11. **Analytical Ultracentrifugation**, Christine Ebel: 24 June

## **Series II**

### **2016 October-March (Order and dates might change)**

12. **XFEL and femtosecond crystallography**, Martin Weik: 7 October
13. **Kinetic protein crystallography**, Dominique Bourgeois: 21 October
14. **Nanocrystallography**, Jacques-Philippe Colletier: 4 November
15. **Methods for isotopic labeling and NMR of large macromolecular assemblies**, Jérôme Boisbouvier: 18 November
16. **In crystallo optical spectroscopy**, Antoine Royant: 2 December
17. **Solid-state NMR**, Paul Schanda: 16 December
18. **Characterization of intrinsically disordered proteins at atomic resolution using NMR**, Malène Jensen: 27 January
19. **SAXS/SANS/WAXS**, Anne Martel: 10 February
20. **Simulating protein chemistry with reaction path finding with QM/MM hybrid methods**, Martin Field: 2 March
21. **AFM**, Jean-Luc Pellequer? 16 March