

NCMI Workshop on Single Particle Reconstruction, Map Interpretation and Visualization

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Wed, Dec 10, 2008

Morning Lectures (Main lecture hall)

8:00 - 8:50	Light Breakfast/Registration
8:50 - 9:00	Opening remarks/welcome
9:00 - 9:45	Steve Ludtke, NCMI/BCM Introduction to Workshop & Single Particle Processing
9:45 - 10:45	Wah Chiu, NCMI/BCM Microscopy & Image Quality, What Makes a Good Image & How to Acquire Them
10:45 - 11:00	Break
11:00 - 12:00	Pawel Penczek Alignment, Measures of Similarity & 3-D Reconstruction
12:00 - 1:00	Lunch (and find your desktop or laptop spot)

Afternoon Practicals (Computer classroom & Laptops in the lecture hall)

1:00 - 2:00	Steve Ludtke Getting EMAN2 Started, and general overview
2:00 - 3:00	David Woolford EMAN2 GUI & Particle Picking
3:00 - 3:20	Break
3:20 - 4:30	cont'd
4:30 - 5:30	Steve Ludtke CTF and Introduction to Python, Part 1

6:00 - *Dinner at Alumni House*
Participant talks

Thu, Dec 11, 2008

Morning Lectures (Main lecture hall)

8:30 - 9:00	Light Breakfast
9:00 - 10:00	Sriram Subramaniam, NIH Strategies for structural analysis of "one-of-a-kind" biological objects
10:00 - 10:40	Matt Baker, NCMI/BCM Interpreting Maps & Model Building
10:40 - 11:00	Break
11:00 - 12:00	Andrej Sali, UCSF Integrating Diverse Data for Structure Determination of Macromolecular Assemblies
12:00 - 1:00	Lunch

Afternoon Practicals (Computer classroom & Laptops in the lecture hall)

1:00 - 3:00	Ben Webb (UCSF) Matt Baker, Yao Cong (NCMI) Analyzing Cryo-EM maps & Modeling with Modeller
3:00 - 3:20	Break
3:20 - 4:30	EMAN2 tutorial contd
4:30 - 5:30	Steve Ludtke Introduction to Python, Part 2
6:30 -	<i>Dinner at BCM (bus transportation)</i> <i>Masahiro Kawasaki, JEOL</i> <i>NCMI Tour & JEOL Microscope demo</i>

Fri, Dec 12, 2008

Morning Lectures (Main lecture hall)

8:30 - 9:00	Light Breakfast
9:00 - 10:00	Klaus Schulten, UIUC
10:00 - 10:30	Break
10:30 - 11:30	Mike Schmid, NCMI/BCM Single Particle Tomography: Alignment, Classification and Averaging
11:30 - 12:30	Lunch

Afternoon Practicals (Computer classroom & Laptops in the lecture hall)

12:30 - 1:00	Ian Rees (NCMI) EMAN2 OODB Introduction and Demo
1:00 - 2:30	EMAN2 tutorial continued
2:30 - 2:50	Break
2:50 - 4:30	cont'd
4:30 - 5:30	Steve Ludtke Introduction to Python Part 3
6:30 -	<i>Workshop Banquet (offsite restaurant by bus)</i>

Sat, Dec 13, 2008

Morning Lectures (Main lecture hall)

8:30 - 9:00 Light breakfast
9:00 - 10:00 Helen Berman, RCSB (PDB)
What the Protein Data Bank teaches us about structural biology
10:00 - 10:30 George Zhang, NCMI/BCM
Visualizing Backbone, Sidechains and Conformational Changes in
Archael Chaperonin (Mm-cpn) by Single Particle Cryo-EM
10:30 - 10:50 Break
10:50 - 11:50 Wen Jiang, Purdue
Near atomic resolution 3-D reconstruction of viruses
11:50 - 12:50 Lunch

Afternoon Practicals (Computer classroom & Laptops in the lecture hall)

12:50 - 1:30 Cathy Lawson, RCSB (PDB)
Practical Introduction to Data Deposition
1:30 - 3:00 Pawel Penczek
Introduction to SPARX
3:00 - 3:20 Break
3:20 - 5:00 Final tutorial session, questions, workshop wrap-up

Workshop Ends