

Program for the iNEXT course
"X-ray and neutron crystallography: from data collection to structures"

The lectures can be attended also by researchers who are not participating in the tutorials. When attending all lectures a 0.5 ECTS certificate will be provided. The precise timing of these lectures is subject to changes.

MONDAY

Chair Lehtiö

Monday morning, May-13, 2019

08:30 Bus departure from hotel

09:00-09:15 Welcoming words (**Lehtiö**, F101)

09:15-10:00 Introduction to macromolecular crystallography (**Rupp**, F101/video)

Coffee break

10:15-11:00 Introduction to macromolecular crystallography (**Rupp**, F101/video)

11:00-11:45 X-ray data collection at synchrotrons (**Popov**, F101)

Lunch

Monday afternoon

13:00-14:00 Best way to collect diffraction data (**Popov**, F101)

14:00-15:00 Neutron crystallography: sample preparation and beam lines (**Oksanen**, F101)

15:30-17:00 Student talks, F101

17:30-18:00 Start-up of linux class room, F132

18:00 Dinner

19:00 Bus back to the hotel

TUESDAY

Chair Oksanen

Tuesday morning, May-14, 2019

08:30 Bus departure from hotel

09:00-9:45 Data processing with DIALS (**Devenish**, F101)

Coffee break

10:00-12:00 Data processing with DIALS (**Devenish**, tutorial, F132)

Lunch

Tuesday afternoon

13:00-14:00 Molecular replacement (**Lebedev**, F101)

14:00-15:00 Structure solution pathways with CCP4 Cloud (**Krissinel**, F101)

15:00-18:00 Structure solution tutorials with CCP4 Cloud (**Krissinel/Lebedev**, tutorial, F132)

18:00 Dinner

19:00 Bus back to the hotel

WEDNESDAY

Chair Koski

Wednesday morning, May-15, 2019

08:30 Bus departure from hotel

09:00-9:45 The Diamond protein crystallography beamlines (**Storm**, F101)

Coffee break

10:00-12:00 Data processing with XDS (**Storm** tutorial, F132)

Lunch

Wednesday afternoon

13:00-13:45 Neutron data processing protocols (**Oksanen**, F101)

14:00-15:00 Neutron scattering refinement using Phenix part 1 (**Oksanen** tutorial, F132)

15:00-16:00 The use of neutron crystallography to solve biological puzzles (**Podjarny**, F101) **HBS-DP seminar**

16:00-18:00 Neutron scattering refinement using Phenix part 2 (**Oksanen** tutorial, F132)

18:00 Bus back to the hotel

19:00 Dinner in the city center

THURSDAY

Chair Kiema

Thursday morning, May-16, 2019

08:30 Bus departure from hotel

09:00-10:00 Model completion and validation (**Joosten**, F101)

Coffee break

10:15-11:15 Preparing for beamtime (**Paterson** F101)

Lunch

Thursday afternoon

12:30-14:00 Remote data collection demonstration (group-1, **Paterson/Storm**, F121A)

14:00-15:30 Remote data collection demonstration (group-2, **Paterson/Storm**, F121A)

12:30-14:00 IceBear demonstration (group-2, **Daniel**, F132)

14:00-15:30 IceBear demonstration (group-1, **Daniel**, F132)

15:30- Data collection by students from own crystals, can continue into the evening

15:30- Model completion and validation in practice (**Joosten** tutorial, F132)

18:00 Dinner

19:00 Bus back to the hotel

24:00 Taxi back to the hotel

FRIDAY

Chair Venkatesan

Friday morning, May-17, 2019

08:30 Bus departure from hotel

09:00-9:30 Summary of the remote data collection session (**Paterson**, F101)

09:30-10:30 Serial crystallography at DLS (**Storm**, F101)

Coffee break

10:45-12:00 Students work in the linux class room with help of the teachers (F132)

12:00 Closing words (**Lehtiö**, F101)

Lunch

13:30 Bus back to the airport for those leaving Oulu