

2008 ADVANCED  
ANALYTICAL ULTRACENTRIFUGATION WORKSHOP

Monday, June 16, 2008

8:00 - 8:45 Continental breakfast (main conference room: 3rd floor)  
8:45 - 9:00 Welcome and Goals of the Workshop

**Overview and Basic Theory - I**

9:00 - 9:45 *Macromolecules in solution* - Tom Laue  
9:45 - 10:30 *Basic theory of sedimentation velocity* - Walter Stafford  
10:30 - 11:00 Break - beverages and snacks  
11:00 - 11:45 *Analysis of sedimentation velocity data* - John Philo  
11:45 - 12:30 *Applications of Fluorescence Detected Sedimentation* - Tom Laue

**Lunch** 12:30 - 13:30 Lunch in cafeteria and group photo

**Experimental design and strategies**

13:30 - 14:00 Experimental design and sample preparation  
14:00 - 14:30 Cell assembly, filling and other tricks of the trade  
14:30 - 15:00 Break - beverages and snacks  
15:00 - 15:30 Group 1: optical systems  
Group 2: machine set up and alignment issues  
15:30 - 16:00 Group 1: machine set up and alignment issues  
Group 2: optical systems  
16:00 - 16:45 "Real-time, on-line, time-derivative analysis with David Hayes' SEDVIEW"

**Workshop reception**

17:30 cocktails and dinner.

**Evening Session**

19:00 21:00 Student Presentations

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Tuesday, June 17, 2008

8:00 - 9:00 Continental breakfast (main conference room)

9:00 - 9:15 Introduction and overview of the day's schedule.

**Sedimentation Velocity Analysis Methods**

9:15 - 10:30 *Sedimentation velocity analysis of mixtures*-John Philo

10:30 - 11:00 Break - beverages and snacks

11:00 - 12:15 *Sedimentation velocity analysis of interacting systems*- Walter Stafford

**Lunch**

12:15 - 13:15 Lunch in cafeteria

**Hands on Data Analysis**

13:15 - 14:30 Group 1: Sedimentation velocity data analysis - Walter Stafford  
Group 2: Sedimentation velocity data analysis - John Philo

14:30 - 15:00 Break - beverages and snacks

15:00 -17:00 Group 1: Sedimentation velocity data analysis- cont'd - Walter Stafford  
Group 2: Sedimentation velocity data analysis- cont'd - John Philo

**Dinner**

18:00 beer and pizza

**Evening Lectures**

19:00- 19:45 "*PKR, a new spin on protein-nucleic acid interactions*", James Cole, Department of Molecular and Cellular Biology, University of Connecticut, Storrs, CT.

19:45-20:30 "*Big changes coming to AUC: New cells, new rotors, new optical systems, new software and a new instrument*", Tom Laue, Department of Biochemistry, University of New Hampshire, Durham, NH.

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Wednesday, June 18, 2008

8:00 - 9:00 Continental breakfast (main conference room)

9:00 - 9:15 Introduction and overview of the day's schedule.

**Basic Theory -II**

9:15 - 10:30 *Sedimentation Equilibrium: theory and analysis* - Jim Cole

10:30 - 11:00 Break - beverages and snacks

**Hands on Data Analysis**

11:00 -12:40 Group 2: Sedimentation velocity data - cont'd - Walter Stafford  
Group 1: Sedimentation velocity data - cont'd - John Philo

**Lunch**

12:45 - 13:30 Lunch in cafeteria

**Hands on Data Analysis**

13:30 -14:30 Group 2: Sedimentation velocity data - cont'd - Walter Stafford  
Group 1: Sedimentation velocity data - cont'd - John Philo

14:30-15:00 Break - beverages and snacks

**Hands on Data Analysis**

15:00 -17:00 Group 1: Sedimentation equilibrium, self-associations- Tom Laue  
Group 2: Sedimentation equilibrium, hetero-associations - Jim Cole

**Workshop Banquet**

18:00 Cocktails and dinner.

**Keynote Lecture**

19:30 20:30 "*Adventures in aggregate land:  
Biotech applications of AUC and complementary methods*" John Philo.

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Thursday, June 19, 2008

8:00 - 9:00 Continental breakfast (main conference room)

9:00 - 9:15 Introduction and overview of the day's schedule.

**Hands on Data Analysis**

9:15 -10:30 Group 1: Sedimentation equilibrium, self-associations- Tom Laue  
Group 2: Sedimentation equilibrium, hetero-associations - Jim Cole

10:30 - 11:00 Break - beverages and snacks

11:00 -12:30 Group 2: Sedimentation equilibrium, self-associations- Tom Laue  
Group 1: Sedimentation equilibrium, hetero-associations - Jim Cole

**Lunch**

12:45 - 13:30 Lunch in cafeteria

**Hands on Data Analysis**

13:30 -15:00 Group 2: Sedimentation equilibrium, self-associations- Tom Laue  
Group 1: Sedimentation equilibrium, hetero-associations - Jim Cole

**General Discussion - experimental strategies**

15:00 15:30 Workflow, case studies, etc... - staff

15:30 Farewell

*Please return your evaluation forms before you leave. We depend on these for improving the workshop.*