School:

Computer simulations of biological membranes & free energy calculations of biomolecular systems

Venue: University of Los Andes, Bogotá, Colombia

Date: August 13-17, 2018

PROGRAM OVERVIEW

| | Monday (13.08) | Tuesday (14.08) | Wed. (15.08) | Thursday (16.08) | Friday (17.08) |
|---------------|--------------------------|--------------------|--------------------|--------------------|-------------------|
| 8:00 - 9:00 | Registration | | | | |
| 9:00 – 9:30 | Welcome | | | Gian Pietro | |
| 9:30 - 10:30 | Bert de Groot | Helgi Ingólfson | Chad Leidy | Miscione | Bert de Groot |
| | | | | Contributed talk 4 | |
| 10:30 – 11:00 | | | Coffee break | | |
| 11:00 – 12:00 | Helgi Ingólfson | Gerhard Hummer | Contributed talk 2 | Esteban Vohringer- | Vytas Gapsys |
| | | | Contributed talk 3 | Martínez | |
| 12:00 – 14:00 | Lunch | | Free program | Lunch | |
| 14:00 – 15:00 | Gerhard Hummer | Bert de Groot | | Andrés González | Hands on |
| 15:00 – 15:30 | Coffee break | | | Coffee break | |
| 15:30 – 16:30 | Thomas Walz | Vytas Gapsys | | Contributed talk 5 | |
| | (webinar) | Contributed talk 1 | | Contributed talk 6 | Closing remarks & |
| 16:30 – 17:00 | Heading to computer room | | | Heading to posters | departure |
| 17:00 – 19:00 | Hands on | Hands on | | Poster session | |

Part 1) Computer simulations of biological membranes

| Monday, August 13 | |
|--------------------|--|
| 8:00 - 9:00 | Registration |
| 9:00 - 9:30 | Welcome |
| 9:30-10:30 | Bert de Groot |
| | The molecular dynamics of solute permeation through biological membranes and |
| membro | ne proteins |
| 10:30 - 11:00 | Coffee break. |
| 11:00 - 12:00 | Helgi Ingólfson |
| | Coarse-grained simulations: introduction and application to membranes |
| 12:00 – 14:00 | Lunch. |
| 14:00 – 15:00 | Gerhard Hummer tba |
| 15:00 – 15:30 | Coffee break. |
| 15:30 - 16:30 | Webinar by Thomas Walz |
| | tba |
| 16:30 – 16:45 | Heading to computer room |
| 16:45 – 19:00 | Hands on |
| Tuesday, August 14 | |
| 9:30 - 10:30 | Helgi Ingolfson |
| | Capturing biological membranes in silico at different compositional complexity |
| 10:30 - 11:00 | Coffee break |
| 11:00 - 12:00 | Gerhard Hummer |
| | tba |

| 12:00 – 14:00 | Lunch |
|----------------|---|
| 14:00 – 15:00 | Bert de Groot |
| | Permeation, selectivity and gating of ion channels studied by computational |
| | electrophysiology |
| 15:00 - 15:30 | Coffee break |
| 15:30 - 16:10 | Vytautas Gapsys |
| | tba |
| 16:10 - 16:40 | Contributed talk 1 |
| 16:40 - 17:00 | Heading to computer room |
| 17:00 – 19:00 | Hands on |
| Wednesday, Aug | ust 15 |
| 9:30 - 10:30 | Chad Leidy |
| | tba |
| 10:30 - 11:00 | Coffee break |
| 11:00 - 11:30 | Contributed talk 2 |
| 11:30 - 12:00 | Contributed talk 3 |
| 12:00 - | free program |

Part 2) Free energy calculations of biomolecular systems

| Thursday, August 16 | |
|---------------------|---|
| 9:00-10:00 | Gian Pietro Miscione |
| | tba |
| 10:00 - 10:30 | Contributed talk 4 |
| 10:30 - 11:00 | Coffee break |
| 11:00 - 12:00 | Esteban Vohringer-Martínez |
| | Force field improvement with ab-initio methods |
| 12:00 - 14:00 | Lunch |
| 14:00 - 15:00 | Andrés González |
| | tba |
| 15:00 - 15:30 | Coffee break |
| 15:30 - 16:00 | Contributed talk 5 |
| 16:00 - 16:30 | Contributed talk 6 |
| 16:30 - 17:00 | Heading to poster room |
| 17:00 – 19:00 | Poster session |
| Friday, August 17 | |
| 9:30-10:30 | Bert de Groot |
| | Introduction to alchemical free energy calculations |
| 10:30 - 11:00 | Coffee break |
| 11:00 - 12:00 | Vytas Gapsys |
| | tba |
| 12:00 - 14:00 | Lunch |
| 14:00 - 16:00 | Hands on |
| 16:00 - 16:30 | Closing remarks and departure |
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