2019 ASMS Workshop Report – FTMS Interest Group
New Ion Manipulations Prior to FT-MS
Tuesday June 5, 2018: 5:45-7:00 pm
Matt Renfrow and Lissa Anderson, Presiding

Estimated Attendance: 60+

Summary of Program and Discussion

The efficiency of ion trapping and transferring prior to FT-MS detection has continued to improve and the sophistication of ion manipulations and separations prior to high resolution detection continue to increase. This year's FT-MS workshop focused on new ion manipulations prior to FT-MS and what new type of FT-MS-based analysis and experimentation these developments allow. The goal is to give users a preview of what future directions ions be moving as the field of FT-MS continues to expand.

The workshop began with an overview of newer ion manipulations presented by Josh Hinkle from Don Hunt's group at the University of Virginia. The talk was entitled "ETD Parallel Ion Parking for Improved Protein Sequencing." Following the introductory talk, four volunteers from the FTMS interest group gave talks that presented work on differential ion mobility (FAIMS), proton transfer charge reductions, SWIFT isolation at 21 T FT-ICR MS, and Ion Mobility on an Orbitrap for native mass spectrometry. Thank you to everyone who volunteered but, due to time constraints, only 5 could be presented:

- Josh Hinkle (University of Virginia) – ETD Parallel Ion Parking for Improved Protein Sequencing
- Alexandre Shvartsburg (Witchita State University) – High-Resolution Differential Ion Mobility (FAIMS) Separations with Orbitrap MS
- Romain Huguet (Thermo Fisher Scientific) – Orbitrap Eclipse Tribrid MS with Proton Transfer Charge Reductions
- Don Smith (ICR, National High Magnetic Field Laboratory) – Ultrahigh Resolving Power Ion Isolation by 21 Tesla FT-ICR MS
- Jacob McCabe (Texas A&M University) - Fourier Transform Ion-Mobility Orbitrap for Native Mass Spectrometry

All of the presentations generated several questions from the attendees which greatly enriched the discussion of the entire workshop.

An announcement was given reminding FTMS Interest Group members to double check their ASMS interest group preferences and the meeting was adjourned. Thank you to the ASMS organizing committee for putting the FTMS workshop on a different night than the Top-Down workshop.