

## **Annual ASMS Meeting 2021 (Philadelphia)**

### **Report on the Fundamentals Interest Group Workshop**

The Fundamentals Group has held its regular Evening workshop, with the topic “*From Theory to Revolutionary Instrumentation: Nothing is More Practical than a Good Theory?*”

This was organized and convened under the unprecedented and challenging circumstances. With the international travel restrictions, the group co-chair Dr. Alexander Makarov could not come from Germany and the US co-organizer Dr. Alexandre Shvartsburg has run the workshop alone. The originally intended speakers from Thermo and Waters also could not come from Europe and had to be replaced by others from same companies, while the talk of a presenter from Russia who could not come was cancelled. These circumstances had an unfortunate effect on the proceedings.

We started about 10 min. late because of the time overrun of ASMS business meeting next door. We had four talks balancing the presentations from industry and academic groups:

1) Dr. Konstantin Ayzikov (Thermo Scientific).

*Ultrahigh-resolution MS: from the Kingdon trap physics to Orbitrap MS*

2. Dr. Roy Martin (Waters).

*Ultrahigh-resolution IMS: from the traveling-wave and synchrotron IMS concepts to Cyclic IMS*

3. Professor Alexandre A. Shvartsburg (Wichita State University).

*High-resolution FAIMS: leveraging the non-Blanc effects in gas mixtures*

4. Professor Joseph Beckman (Oregon State University).

*Electron Capture Dissociation: from a peculiar FTICR feature to mass-market technology*

Considering the overall conference participation at about half of the 2018 - 2019 numbers and the Wednesday slot, the workshop was attended well. Sufficient time for questions was allowed after each talk, and there were several lively discussions involving the presenters.

We are proposing a new topic for the Fundamentals Workshop at ASMS 2022 and hope for a better event with participation of both co-chairs and all scheduled speakers.