

Third Workshop on High-speed Imaging Sensors

Thursday 3 April

10:00 – 11:00 Registration and coffee

11:00 – 12:20 **Session 1** Chair: Claire Vallance

11:00 – 11:40 **Renato Turchetta**, Rutherford Appleton Laboratory:
Millions of frames per second with CMOS image sensors.

11:40 – 12:20 **Mark Brouard**, Univ. of Oxford:
The Pixel Imaging Mass Spectrometry (PI-MMS) sensor and its applications.

12:20 – 13:20 Lunch

13:20 – 14:40 **Session 2** Chair: Mark Brouard

13:20 – 14:00 **Marc Vrakking**, Max Born Institute Berlin: *The TimePix sensor and imaging applications.*

14:00 – 14:40 **Gil Bub**, Univ. of Oxford: *New approaches for high-speed cardiac imaging.*

14:40 – 15:10 Coffee

15:10 – 17:10 **Session 3** Chair: Josephine Bunch

15:10 – 15:50 **Todd Huffman**, Univ. of Oxford: *Sensor requirements for 'Imaging' at 1/10,000 of the proton's radius: High speed sensor applications within particle physics detectors.*

15:50 – 16:30 **Philipp Kukura**, Univ. of Oxford:
Interferometric scattering microscopy: A high-speed camera for the nano-world.

16:30 – 17:10 **Rainer Cramer**, Univ. of Reading:
Investigating MALDI analyte and cancer biomarker distributions by MALDI MS imaging.

17:10 – 18:40 **Poster session** and trade exhibition

19:00 Dinner

Friday 4 April

09:30 – 10:50 **Session 4** Chair: Jens Riedel

09:30 – 10:10 **Michael White**, Brookhaven National Laboratory:
Ion imaging of gas-phase products from surface photoreactions using the PI-MMS camera.

10:10 – 10:50 **Daniel E. Pooley**, Rutherford Appleton Laboratory:
Energy-resolved neutron imaging: an overview of technique and instrumentation.

10:50 – 11:20 Coffee

11:20 – 12:40 **Session 5** Chair: Paul Prentice

11:20 – 12:00 **Jens Riedel**, BAM Federal Institute for Materials Research and Testing, Berlin:
High-speed ambient spectrochemical mapping and velocity map imaging in the electronic ground state.

12:00 – 12:40 **Klaus Suhling**, King's College London:
Fluorescence microscopy with microsecond-time-resolution photon counting imaging.

12:40 – 13:40 Lunch

13:40 – 15:40 **Session 6** Chair: Gil Bub

13:40 – 14:20 **Paul Prentice**, Dundee Univ.: *Bubble trouble - cavitation for therapy?*

14:20 – 15:00 **Alessandro Esposito**, Univ. of Cambridge:
Multiplexing biochemical reactions within the cell: new approaches and sensors.

15:00 – 15:40 **Josephine Bunch**, National Physics Laboratory: *Towards high speed, high spatial resolution MALDI MSI: Challenges and Opportunities in Life Sciences.*

15:40 Closing remarks followed by coffee