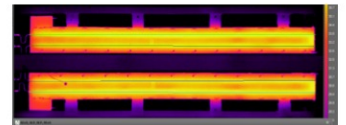


# Detector Development Group at Queen Mary

- <https://www.qmul.ac.uk/spcs/collaborative-research-centres/detector-development/>
- Multidisciplinary team of experts working on:
  - Novel radiation sensors
    - Silicon: see talk on Zero Mass Project yesterday
    - Beyond silicon (e.g. diamond)
  - Instrument Design and Construction
  - Radiation Damage and Simulation



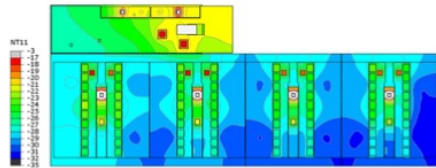
Fully equipped ISO 7 certified clean room



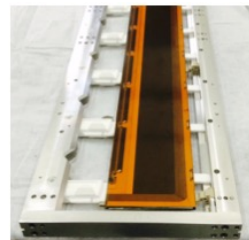
Infra-red thermal imaging system



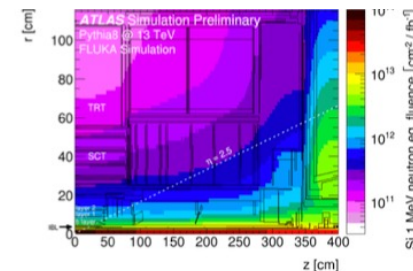
Silicon strip sensors for LHC



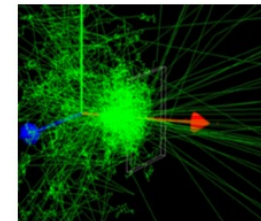
Heat transfer simulation for detector system cooling design



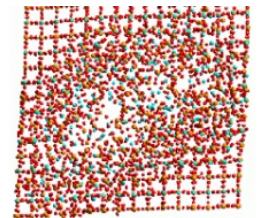
Module assembly engineering



FLUKA radiation environment simulations



Geant4 sensor interaction simulations



DL\_Poly material damage simulation

# Applications for the Future Trackers

- Apply our expertise in:
  - Thermal simulation and measurements
  - Radiation damage simulation and measurements
  - Instrument design and construction
  - Experiment-machine interface
  - Tracking in high-density environments
- Develop curved silicon technology, using practical experience from Zero Mass Project