Introduction to Monte Carlo Event Generation
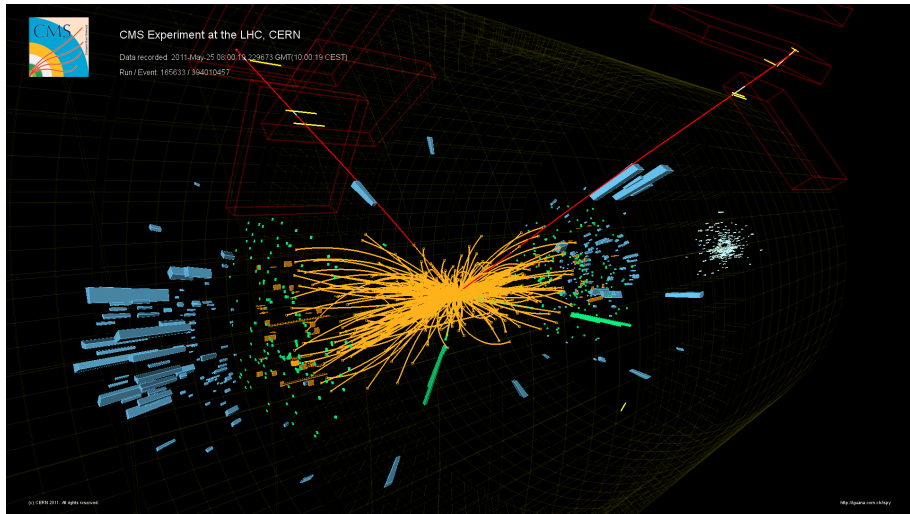
CTEQ School 2018
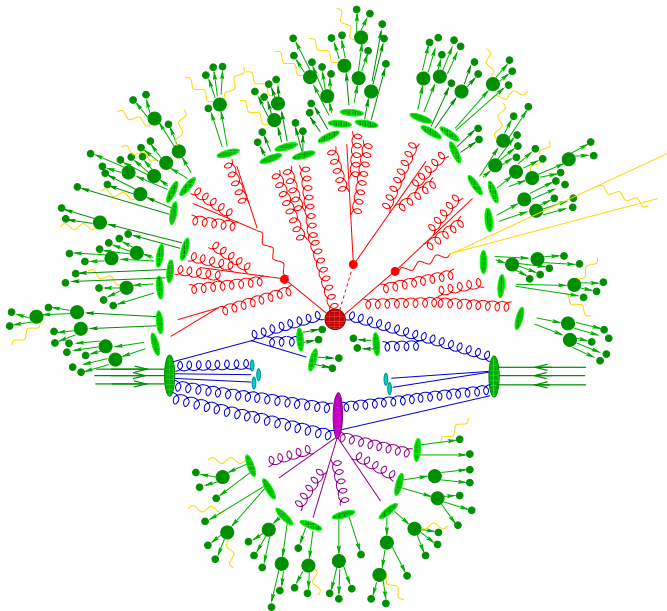
Silvan Kuttimalai

June 21st, 2018

A Four-Lepton Candidate Event

CMS Experiment at the LHC, CERN
Data recorded: 2011-May-25 08:00:19.229673 GMT(10:00:19 CEST)
Run / Event: 165633 / 394010457

A Monte Carlo Event

Further Reading

- Buckley et al.: General-purpose event generators for LHC physics, arXiv:1101.2599

- Höche: Introduction to parton-shower event generators, arXiv:1411.4085

- Sjostrand, Mrenna, Skands: PYTHIA 6.4 Physics and Manual, arXiv:hep-ph/0603175