

Outlook Theory 2018

Selection of expected highlights ...

Research:

Some examples:

- Studies at the multi-loop frontier: QCD parton evolution at N³LO [F. Herzog, J. Vermaseren, ...]
- Electroweak resummation for inclusive processes [W. Waalewijn, ...]
- Partonic structure of heavy nuclei using machine learning tools [J. Rojo, ...]
- B physics: rare processes, CP violation, shedding more light on anomalies in LHCb data [R.F., ...]

+ adapt to new developments ...

Events and Visitors

- SCET Workshop 2018
- Theory meets Experiment
- High-profile visitors:
Chris Quigg Rohini Godbole



PhD Defenses

- Sabrina Cotogno (QCD)
- Tom van Daal (QCD)
- Jacopo Fumagalli (Cosmo)



Looking forward to an exciting year!

$$\delta_B A_\mu^a = (D_\mu \mathcal{C})^a + \mathcal{C}_\mu^a$$

$$\delta_B \mathcal{C}^a = \eta^a + \frac{1}{2} f^{abc} \mathcal{C}^b \mathcal{C}^c$$

$$\delta_B \eta^a = f^{abc} \eta^c \mathcal{C}^b$$

$$\delta_B \mathcal{C}_\mu^a = f^{abc} \mathcal{C}_\mu^b \mathcal{C}^c - (D_\mu \mathcal{C})^a$$

\downarrow
 \mathcal{C}^a
 \mathcal{C}_μ^a

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