

Accelerating new physics searches with XSEC

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Hand in hand with the large-scale experimental attempts to observe traces of supersymmetry at the LHC, there are ongoing efforts to assess the combined power of all searches so far. Such global fits to experimental results require accurate theoretical predictions of the production cross sections for supersymmetric particles. However, computing higher-order contributions is prohibitively time-consuming and a major bottleneck for such scans in high-dimensional parameter spaces, that take into account a plethora of constraints. This presentation will showcase XSEC, a new software tool that employs the power of Gaussian Processes to radically speed up cross-section evaluations and to make detailed uncertainty estimates.

Authors: Prof. BUCKLEY, Andy; Ms HOLM, Ingrid A.V.; Dr KVELLESTAD, Anders; Prof. RAKLEV, Are; Prof. SCOTT, Pat; Mr SPARRE, Jon Vegard; VAN DEN ABEELE, Jeriek (University of Oslo)

Presenter: VAN DEN ABEELE, Jeriek (University of Oslo)

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