

FAKULTÄT für PHYSIK
LUDWIG-MAXIMILIANS-UNIVERSITÄT
MÜNCHEN/GARCHING

PHYSIK-DEPARTMENT
TECHNISCHE UNIVERSITÄT MÜNCHEN
MÜNCHEN/GARCHING

MLL-KOLLOQUIUM

Donnerstag, 02.06.2016, 16¹⁵ Uhr

Hörsaal der LMU in Garching, Am Coulombwall 1
Treffen zum gemeinsamen Kaffee 16 Uhr

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Precise and accurate simulations for the Large Hadron Collider

Simulations for physics processes at the Large Hadron Collider are a necessity in extracting information from the data. The most accurate and precise predictions are based on merging matrix elements of various parton multiplicities and matching them to a parton shower. In this talk, I will review the available techniques and mention their strengths and weaknesses. The most recent of these methods $\tilde{\text{O}}\tilde{\text{C}}\tilde{\text{o}}$ and probably the most powerful one $\tilde{\text{O}}\tilde{\text{C}}\tilde{\text{o}}$ is based on an extension of the MINLO approach, which will be discussed in more detail. As a proof-of-concept, a selection of results for Higgs boson production based on this new method will be presented.

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