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Vincia —an Antenna approach for final-state radiation

An accurate and efficient simulation of final-state radiation is key for many studies of hadron decays in view of the ever-increasing experimental precision. In this talk, we present a new simulation tool based on the Antenna parton shower, the Vincia generator, which we recently extended to simulate QED radiation from hadrons. As part of this effort, we implemented state-of-the-art tree-level matrix element corrections for various decay topologies and introduced Vincia as alternative for final-state radiation inside the EvtGen generator. We will show the results of several benchmark tests against established final-state radiation generators, comparing the physics results and the performance of the simulation.

Secondary track

T07 - Flavour Physics and CP Violation

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