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### **New Jet Methods for High-Multiplicity Environments<sup>1</sup>**

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Accurate jet reconstruction in high multiplicity environments is essential to maximize what we learn both in heavy-ion collisions at RHIC and LHC, and in searches of new (beyond standard model) physics in high-luminosity LHC proton-proton (pp) running. State of the art jet-physics methods, developed in parallel for these two environments, have recently been used by the STAR collaboration for the first ever measurements of jets in gold-gold collisions. This talk will outline the theoretical basis of these methods and examine the issues that are relevant in optimizing their performance, highlighting the different considerations that should be taken into account when using them for heavy-ion as opposed to high-luminosity pp collisions.

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