

# A Normalizing Flow Model for Boosted Jets

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In this work, we consider dijet production and present a model for the distribution of three-momenta of particles constituting the two boosted jets. Our method involves starting with a simple probability distribution for the momenta in the rest frame of the jets' parent. Then, we use the Lorentz transformation to map the rest frame momentum distribution into a model of the boosted momenta parameterized by the velocity of the jets' parent. Maximum likelihood estimation can then quickly estimate this velocity for a dataset. Future work could use this model for efficiently generating jet data, tagging jets, or inferring other physical parameters.

**Primary authors:** CRANMER, Kyle Stuart (New York University (US)); DRNEVICH, Matthew (NYU)

**Presenter:** DRNEVICH, Matthew (NYU)

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