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Azimuthal decorrelation and the Winner-Takes-All axis

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The azimuthal decorrelation between a vector boson and a jet is an essential hard probe in high energy proton-proton and heavy-ion collisions. It suffers from large logarithms in the back-to-back limit, which can be resummed using SCET. In this talk I will demonstrate that by adopting the Winner-Takes-All recombination scheme the observable's theoretical treatment simplifies tremendously, which allows us to derive resummed predictions at NNLL accuracy. I will discuss and motivate the simplicity of the WTA azimuthal decorrelation by contrasting it with the closely related radial decorrelation, and discuss various theoretically interesting features and extensions, such as the appearance of large non-singular corrections of electroweak origin, or the extension to dijet decorrelation.

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