

## The recombination model

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The recombination model has been a success story at RHIC. It describes certain features of hadron production at intermediate transverse momentum at RHIC energies by simply assuming coalescence of effective quarks into hadrons. R. J. Fries has been one of the main proponents of the recombination model in the past [1]. One remaining challenge for recombination models are RHIC data on di-hadron correlations which exhibit some features of QCD jets. Previously, R. J. Fries and collaborators showed that near-side correlations of two hadrons are compatible with a model which includes both fragmentation of jets and recombination of partons if small 2-particle correlations among partons are allowed. These correlations could emerge from quenched jets, so called hot spots.

Recently R. J. Fries started a collaboration with C. Nonaka to apply this technique to away-side correlations (i.e. hadrons that are measured with a difference of approximately 180 degrees in azimuthal angle). No such study has been carried out before. This project has the potential to finally settle open questions concerning recombination models and di-hadron correlations. The focus will be on the baryon-to-meson ratio of away-side hadrons which can distinguish recombined hadrons from fragmented hadrons.

[1] R. J. Fries, B. Müller, C. Nonaka, and S. A. Bass, *Phys. Rev. Lett.* **90**, 202303 (2003).