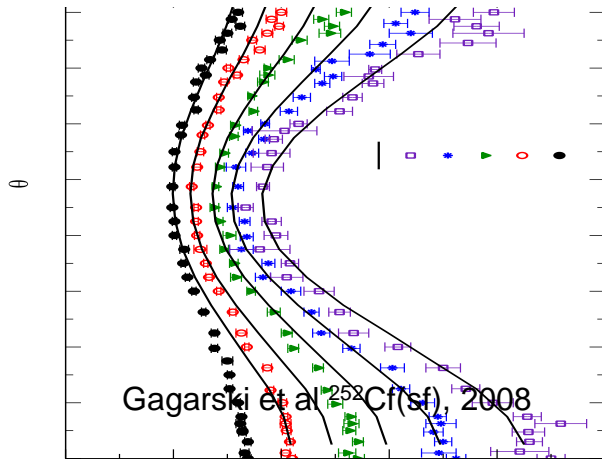


Modeling of Multi-Particle Systems: Fission and Flavor

Research Overview

Developing event-by-event fission model
FREYA (Fission Reaction Event Yield
Algorithm) to study correlations in fission.

Numerical modeling of heavy quark and
quarkonium production in cold nuclear
matter. Basic science theory projects.



Neutron-neutron angular correlations
from FREYA compared to data.

Potential Collaborations

- Fission physics, modeling with FREYA code:
 - Modeling systematics of fission fragment yields in mass, charge, total kinetic energy, incident neutron energy
 - Modeling excitation energy sharing among fragments at scission
- Relativistic heavy-ion physics:
 - Charmonium and heavy quark energy loss

Past and Present Dissertations

- “Leading charm hadrons”, Tom Gutierrez (2000); now Prof. of Physics at Cal Poly
- Vincent Cheung, UC Davis (since 2016) “Charmonium polarization in the color evaporation model”

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