

# **ACCELERATOR SEMINAR**

## **“High-Order Achromatic Optics for FRIB Fragment Separators: Transfer Maps, Differential Algebraic Methods and Symmetries”**

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One of the main components of the future Facility for Radioactive Ion Beams is the production and separation area. The envisioned fragment separators will need to satisfy stringent requirements regarding transmission, resolution and purity of selected ions and background distributions. The tools and methods developed to address this problem will be summarized: an overview of transfer maps, differential algebraic methods, and the code COSY Infinity will be given. We show how symmetries can be used to reduce the dimensionality of the problem. Preliminary designs and their performance will be surveyed.

**Thursday, January 21, 2010  
3:30 p.m. – 4:30 p.m.  
CEBAF Center, Room L102/104**

**Coffee before Seminar  
Beginning at 3:00 p.m.**