

## Geometry, Topology and Dynamics Seminar

### *Meromorphic connections and the Stokes groupoids*

Brent Pym (University of Oxford)

**Abstract:** To any effective divisor on a smooth complex curve, one can associate, in a canonical way, a Lie groupoid. This groupoid is a complex analytic surface that serves as the natural domain for the parallel transport of meromorphic connections on the curve with poles bounded by the divisor. I will describe the local and global structure of these groupoids, and their application to some classical topics in the analysis of ODEs, particularly the "resummation" of divergent series solutions. This talk is based on joint work with Marco Gualtieri and Songhao Li.

*We will be going for a seminar dinner. Email [schapos@uic.edu](mailto:schapos@uic.edu) if you'd like to join.*

Monday, March 7 at 3:00 PM in SEO 636
---------------------------------------