



Department of Mathematics  
The Chinese University of Hong Kong

數學系  
香港中文大學

Phone: (852) 3943 7988 • Fax: (852) 2603 5154 • Email: [dept@math.cuhk.edu.hk](mailto:dept@math.cuhk.edu.hk) (Math. Dept.)  
Room 220, Lady Shaw Building, The Chinese University of Hong Kong, Shatin, N.T., Hong Kong

# Seminar

## *A non-abelian algebraic criterion for good reduction of curves*

*Dr. Valentina Di Proietto*  
*University of Exeter*

### Abstract

For a family of proper hyperbolic complex curves  $f : X \rightarrow \Delta^*$  over a punctured disc  $\Delta^*$  with semistable reduction at the center, Oda proved, with transcendental methods, that the outer monodromy action of  $\pi_1(\Delta^*) \cong \mathbb{Z}$  on the classical unipotent fundamental group of the generic fiber of  $f$  is trivial if and only if  $f$  has good reduction at the center. In this talk I explain a joint work with B. Chiarellotto and A. Shiho in which we give a purely algebraic proof of Oda's result.

Date: 28 October 2019 (Monday)  
Time: 10:00am – 11:00am  
Venue: Room 222, Lady Shaw Building,  
The Chinese University of Hong Kong, Shatin

*All are Welcome*