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INTERNATIONAL
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THEORETICAL
SCIENCES

TATA INSTITUTE OF FUNDAMENTAL RESEARCH

ICTS Seminar

Title : On the Birch and Swinnerton-Dyer Conjecture

Speaker : Florian Sprung, Institute for Advanced Study, Princeton

Date : Thursday, August 10, 2017

Time : 3:00 PM

Venue : Amal Raychaudhuri Meeting Room, ICTS Campus, Bangalore

Abstract : The Birch and Swinnerton-Dyer conjecture, one of the millenium problems, is a bridge between the algebra and the analysis of elliptic curves. (Here is an elliptic curve: $y^2=x^3+1$.) In one sentence, the conjecture says that L-function associated to an elliptic curve should know 'everything' about the rational points on it. Other than explaining what the L-function is, we will discuss what is known about the conjecture, and how we can attack it one prime at a time. This talk assumes no specialized background in number theory.