Geometry, Groups and Dynamics/GEAR Seminar
(held at the Illinois hub of GEAR)

12:00 pm, Thursday, March 3, 2016, 243 Altgeld Hall
Olga Kharlampovich (Hunter College of CUNY)
Equations in free associative algebras and group algebras of hyperbolic groups
Abstract: We will talk about Diophantine problems for groups and rings and show that equations are undecidable in a free associative algebra and in a group algebra of a free group (or torsion free hyperbolic group) over a field of characteristic zero. This is a surprising result that shows that answers to first-order questions in a free non-abelian group and in its group algebra are completely different. (Joint results with A. Miasnikov)
Video