

 **INFO SHEET**

April 26, 2011

QUEEN'S UNIVERSITY AT KINGSTON  
Department of Mathematics and Statistics  
<http://www.mast.queensu.ca>

CALENDAR		
<b>Wednesday, April 27</b>	<b>Special Number Theory Seminar</b>  <b>Time: 3:30 p.m. – 4:20 p.m.</b> <b>Place: Jeffery 422</b>	<b>Speaker:</b> David Trochanowski, Queen's University <b>Title:</b> The Unsolvability of Hilbert's 10th Problem  <b>Abstract Attached</b>

Items for the Info Sheet should reach Anne (burnsa@mast.queensu.ca) by noon on Monday. The Info Sheet is published every Tuesday.

**Wednesday, April 27, 3:30 p.m. Jeffery 422**

Speaker: David Trochanowski

Title: The Unsolvability of Hilbert's 10th Problem

**Special Number Theory Seminar**

**Abstract:** Hilbert's 10th problem asks for an algorithm which determines whether a given Diophantine equation has integer solutions. In this talk, I will give a sketch of the proof of the unsolvability of this problem: there is no algorithm which can decide this question in general. The main result is the equivalence of the notions of computable or recursive functions and Diophantine functions, which capture the notion of Diophantine equations having integer solutions. The construction of a universal Diophantine set will provide us with a polynomial for which there cannot be an algorithm which decides whether it has integer solutions.