

**IMIA Operator Algebra Seminar**  
University of Wollongong

Title: The Cubic Dirac Operator

Speaker: Pedram Hekmati (University of Adelaide)

Time and Dates: 3:30pm Thursday, 26 April 2012

Location: Room 8.G25

Abstract: Paul Dirac discovered the operator that now bears his name in 1928 in his search for the square root of the D'Alembert operator. Thirty years later it was reintroduced in Euclidean signature by Atiyah and Singer in their seminal work on index theory. In representation theory a certain 'cubic' version of this operator plays a significant role. In this talk, I will provide some background on this cubic Dirac operator and discuss a certain infinite dimensional generalisation.