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**The Hong Kong University of Science and Technology**

**Department of Mathematics**

**Seminar on Pure Mathematics**

**Fourier coefficients of half-integral weight  
modular forms**

By

***Prof. Yuk-Kam LAU***  
***The University of Hong Kong***

**Abstract**

In this talk, we give an exposition on some recent work, due to various researchers, on the sign of the Fourier coefficients of modular forms when the Fourier coefficients are real. Then we discuss our findings for half-integral weight modular forms in two collaboration projects with the team comprising of Y.-J. Jiang, G.-S. Lu, E. Royer and J. Wu and with my colleague B. Kane respectively. One project is about the sign-changes of Fourier coefficients over squarefree numbers, and the other is concerned with the halting of an algorithm that constructs supersingular elliptic curves when a maximal order of the quaternion algebra is input.

***Date: Monday, 8 May, 2017***

***Time: 4:30p.m.-5:30p.m.***

***Venue: Room 5501, Academic Building  
(near Lifts 25&26), HKUST***

***All are welcome!***