## **JAMIE MINGO**, Queen's University Second Order Cumulants of Products

Voiculescu's theory of free probability gives a universal rule for calculating moments of free random variables given the moments of the individual random variables. Second order freeness does the same for the fluctuations of random variables which are free of second order.

In this talk I will show how to extend a theorem of Krawczyk and Speicher for cumulants of products to the second case. This is joint work with Edward Tan and Roland Speicher.