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SEMINAR OF MATHEMATICS

> TUESDAY 27 MARCH 2018, 11:00 - GR A3 31

Dr. Georg OBERDIECK (MIT, Cambridge / USA) will present a seminar entitled:

"Enumerative geometry and modular forms"

Abstract:

It is expected that the enumerative geometry of Calabi-Yau geometries is related to the theory of modular forms. A basic example (which I will recall) is the count of uniruled divisors on hyper-Kaehler manifolds by Fourier coefficients of Jacobi forms. Another interesting but less understood case is the count of algebraic curves and sheaves on Calabi-Yau threefolds.

I will discuss recent work with A. Pixton and J. Shen which, for a particularly Calabi-Yau threefold, proves the modularity of its curve counting partition function using geometric arguments.

Lausanne, 20 March 2018/ AA/cr