

Mathematics Department Colloquium

Organizer(s): Kenneth Ribet

Thursday, 4:10–5:00pm, 60 Evans

Feb. 5 **Claudio Procesi**, Istituto ‘Guido Castelnuovo’ (University of Rome)

From splines to the index theorem

The celebrated index theorem of Atiyah–Singer led to a theory of transversally elliptic operators, with respect to some compact group of symmetries. In that case an explicit computation of the equivariant K -theory and the associated index for linear representations of tori exists only in an implicit form. Some rather surprising connection arose with the work of Dahmen–Micchelli on partition functions and the box-spline which allows us to make the constructions extremely explicit (joint work with Corrado De Concini and Michèle Vergne).