

# Guido Festuccia: Supersymmetric Indices and RG Flows

*Monday, May 15, 2017 4:00 PM (1 hour)*

Indices are a powerful tool to analyse the dynamics of supersymmetric field theories; for instance, supersymmetric indices for non-conformal susy field theories can be used to explore their RG flows.

An interesting class of indices can be defined by placing (non conformal) supersymmetric field theories on  $S^1 \times S^1$  preserving susy. For  $N=1$  this index is related to the  $N=1$  superconformal index in a simple way.

For  $N=2$  superconformal theories one can also define an index but its extension to non conformal  $N=2$  field theories is not possible. Nevertheless, I will show that a particular limit of the  $N=2$  superconformal index, the “Schur limit”, can be defined for non conformal field theories. I will then explore the properties and uses of this index.