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## Superconformal indices in closed form

Superconformal indices are a type of partition function that encode the protected spectrum of a superconformal field theory (SCFT). They are invariant under continuous deformations and renormalization-group flows, and provide insights into physical and mathematical equivalences between dual SCFTs and their low energy dynamics. In this talk, I will explain the background and motivation for calculating superconformal indices, present the results of our computation of well-defined closed form expressions for the full Superconformal Index, and its supersymmetric limits, namely the Hall-Littlewood, Schur and Macdonald indices in the cases of  $\mathcal{N} = 1$ ,  $\mathcal{N} = 2$ , and  $\mathcal{N} = 4$  SCFTs. Lastly, I will conclude with a review of their physical interpretation of our results.

### Apply for student award at which level:

MSc

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Yes, I ACCEPT

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