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**Clay Cordova**, 1 Einstein Dr., Princeton, NJ 08540, and **Shu-Heng Shao\***, 1 Einstein Dr., Princeton, NJ 08540. *Superconformal Indices, BPS Particles, and Chiral Algebras*.

We conjecture a precise relationship between the Schur limit of the superconformal index of four-dimensional N=2 field theories, which counts local operators, and the spectrum of BPS particles on the Coulomb branch. We verify this conjecture for the special case of free field theories, N=2 QED, and SU(2) gauge theory coupled to fundamental matter. Assuming the validity of our proposal, we compute the Schur index of all Argyres-Douglas theories. Our answers match expectations from the connection of Schur operators with two-dimensional chiral algebras. (Received September 07, 2016)