1053-00-4   **Spyridon Alexakis***, MIT, Department of Mathematics, Cambridge, MA. *Global Conformal Invariants: A conjecture of Deser and Schwimmer.*

Global Conformal Invariants are integrals of local geometric scalars, which remain invariant under conformal changes of the underlying metric. I will discuss my proof of a conjecture of Deser and Schwimmer, which asserts that any such global invariant admits a decomposition into standard "building blocks" of three types.

I will present some ideas from the proof, putting emphasis on an algebraic question which lies at the heart of the problem. Time permiting, some analogous questions in Kahler geometry will also be discussed. (Received June 11, 2008)