Meeting: 1001, Evanston, Illinois, SS 19A, Special Session on Algebraic Representations and Deformations

1001-16-386 **Stefan Catoiu*** (`scatoiu@condor.depaul.edu`), Department of Mathematics, DePaul University, 2320 N. Kenmore Avenue, Chicago, IL 60614. *Ideal Structure of Iterated Smash Tensor Power of the Restricted Enveloping Algebra of sl_2.* Preliminary report.

The restricted enveloping algebra of sl_2 is the algebra over a field of characteristic $p > 0$ generated by indeterminates e, f, h, which are subject to relations $ef - fe = h$, $he - eh = 2e$, $hf - fh = -2f$, and $e^p = f^p = h^p - h = 0$. Using the representation theory of this algebra, we discuss the two-sided ideal structure of its iterated smashed tensor powers, better known as the Frobenius kernels of sl_2. Similar results hold for quantum analogues of these algebras. (Received August 31, 2004)