1035-17-1887   **Daniel F. Pinzon*** (`dpinzon@uafortsmith.edu`), 5210 Grand Ave., Math-Sciences Building, Fort Smith, AR 72913. *Vertex Algebras and Strongly Homotopy Lie Algebras.*

Vertex algebras and strongly homotopy Lie algebras (SHLA) are used extensively in quantum field theory and string theory. Recently, it was shown that a Courant algebroid can be naturally lifted to a SHLA. The 0-product in the de Rham chiral algebra has an identical formula to the Courant bracket of vector fields and 1-forms. We show that in general, a vertex algebra has an SHLA structure and that the de Rham chiral algebra has a non-zero l_4 homotopy. (Received September 20, 2007)