

1065-17-193

**Bojko Bakalov\*** (bojko\_bakalov@ncsu.edu) and **Nikolay M Nikolov**. *Local endomorphisms of vertex algebras*.

We introduce the notion of a local endomorphism of a vertex algebra as a linear operator whose commutator with every vertex operator is local with respect to all other vertex operators. Examples of local endomorphisms are provided by the modes of vertex operators as well as by the action of infinitesimal symmetries. We describe how they are related to the pseudo-derivations of Etingof-Kazhdan and to the derivations of the affinization of the vertex algebra. (Received September 13, 2010)