1067-17-2014   **Prasad Senesi*** (`senesi@cua.edu`), 620 Michigan Ave NE, Opus Hall 108, Washington, DC 20064, **Erhard Neher** (`senesi@cua.edu`), Washington, 20064, and **Alistair Savage** (`senesi@cua.edu`), Washington, 20064. *Irreducible finite-dimensional representations of equivariant map algebras.*

Let $\mathfrak{g}$ be a finite-dimensional simple Lie algebra and A an affine algebraic variety defined over an algebraically closed field of characteristic 0. Let G be a finite group which acts via automorphisms upon $\mathfrak{g}$ and A. The Lie algebra of regular maps from A to g which are equivariant under the the action of G is called an equivariant map algebra. Examples of such algebras include current algebras, multiloop algebras (in particular, the untwisted loop algebras $\mathfrak{g} \otimes k\left[t^{\pm 1}\right]$ and their twisted subalgebras), and the Onsager algebras. In this talk we will classify the finite-dimensional irreducible representations of an arbitrary equivariant map algebra, and describe some conditions which ensure that all such representations are given by evaluation representations of $\mathfrak{g}$.

This is joint work with Erhard Neher and Alistair Savage. (Received September 22, 2010)

1