1138-13-13 **Robin Baidya***, Department of Mathematics and Statistics, Georgia State University, Atlanta, GA 30303. *Forster–Swan for maps.* Preliminary report.

The Forster–Swan Theorem gives an upper bound on the global number of generators of a certain type of module, namely, a finitely generated right module M over a ring S that is a module-finite algebra over a commutative ring R. The theorem also assumes that R has a finite-dimensional Noetherian maximal spectrum. In this theorem, the global number of generators is expressed in terms of local numbers of generators and dimensions of prime ideals in j-Spec(R). If the local numbers of generators are sufficiently large, then the Eisenbud–Evans Basic Element Theorem states that there is an element of M that is part of a minimal generating set for M after localizing at any prime ideal in j-Spec(R). In this talk, we generalize Forster–Swan and Eisenbud–Evans by replacing elements of M with maps in $\mathrm{Hom}_S(N, M)$, where N

is a direct summand of a direct sum of finitely presented right S-modules. We recover Forster–Swan and Eisenbud–Evans by setting $N = S$. (Received December 24, 2017)