

Meeting: 1004, Bowling Green, Kentucky, SS 10A, Special Session on Hopf Algebras and Related Topics

1004-16-26 **Edwin J. Beggs** (e.j.beggs@swansea.ac.uk), Department of Mathematics, University of Wales, SA2 8PP Swansea, Wales, and **Earl J. Taft*** (etaft@math.rutgers.edu), Department of Mathematics, Rutgers University, Piscataway, NJ 08854. *Products of linear maps on bialgebras.*

We discuss various products on the linear maps of a bialgebra. Two are Doi-Koppinen generalized smash products, and a third is motivated by weak Hopf algebras. We discuss relations with left Hopf algebras and Hopf algebroids, and examples involving group doublecross products and semigroup algebras. (Received December 22, 2004)