Meeting: 1003, Atlanta, Georgia, AMS CP 1, AMS Contributed Paper Session

Aaron Lauve\* (lauve@math.rutgers.edu), Rutgers University, Busch Campus, Hill Center, 110 Frelighuysen RD, Piscataway, NJ 08854-8019. Generalized Grassmannians Constructed via Quasideterminants.

We demonstrate a passage from the "quasi-Plücker coordinates" of Gelfand and Retakh, to quantum Plücker coordinates built from q-generic matrices. In the process, we rediscover the defining relations of Taft and Towber's quantum Grassmannian. Finally, we reflect on the steps taken and develop a natural procedure for constructing Grassmannians in a variety of other noncommutative settings. (Received October 05, 2004)