1163-35-597 **Zachary T Hilliard*** (`hilliardzt@cofc.edu`), Charleston, SC 29401, and **Alex Kasman** (`kasmana@cofc.edu`), Charleston, SC 29401. *Tail Behavior and Non-Uniqueness of Quaternion-Valued KdV 1-Solitons.* Preliminary report.

A recent paper developed methods for producing quaternion-valued solutions to the KdV Equations, but many open questions of interest remain. This talk will address two questions concerning the 1-soliton case: one about the behavior of the tails of breather solutions and the other on the choice of two sets of parameters that produce the same solution. The main results thus far have been the development of formulas for the tail behavior and the identification of sets of algebraic equations for the parameters whose solution resolve many of the open questions. (Received September 10, 2020)