

1135-G1-1464      **Robert A Powers\*** ([robert.powers@unco.edu](mailto:robert.powers@unco.edu)), School of Mathematical Sciences, 501 20th Street, Campus Box 122, Greeley, CO 80639-0098. *Implications of Expert Teachers' MKT of Analyzing Exponential Functions Tasks on the Preparation of Future Secondary Mathematics Teachers*. Preliminary report.

Our current work endeavors “to understand expert secondary mathematics teachers’ knowledge for teaching exponential functions” (Oehrtman, Novak, Parker, & Powers, 2015, p. 1). We focus on exponential functions because of the increased attention in the Common Core State Standards (National Governors Association Center for Best Practices, 2010), especially during the first year of algebra. As a result, deep content knowledge for teaching exponential functions is necessary for all preservice secondary mathematics teachers, including those who plan to teach functions in grade 8 (CBMS, 2012). Part of our work investigates the decisions expert teachers make analyzing an exponential functions task (Mathalicious, 2017) and indicates these teachers draw on their knowledge gained while teaching (Parker, Troudt, & Powers, in progress). The goal of this session is to present a critical reflection of mathematical knowledge needed in the preparation of secondary teachers based on the evidence from expert secondary mathematics teachers. The session will conclude with recommendations for improved development of the mathematical knowledge for teaching of future secondary mathematics teachers. (Received September 22, 2017)