

1107-03-354 **Reed Solomon*** (david.solomon@uconn.edu), University of Connecticut, U-3009, Department of Mathematics, 196 Auditorium Road, Storrs, CT 06269. *Computable ordered abelian groups and generalized power series*. Preliminary report.

Julia Knight and Karen Lange, together with various coauthors, have recently produced a number of results on the complexity of integer parts and other associated algebraic objects for computable real closed fields. These results are based on Mourges and Ressayre's proof of the existence of integer parts for real closed fields using an embedding of such fields into fields of generalized power series. In this talk, we will discuss related computability questions in the context of ordered abelian groups rather than real closed fields, and in particular, how embeddings into generalized power series are used in the context of ordered groups. (Received January 19, 2015)