1136-08-212 **Travis Alan Baumbaugh*** (tbaumba@clemson.edu), 112 Appletree Avenu, Apt. 128, Central, SC 29630, and **Yariana Diaz**, **Sophia Friesenhahn**, **Felice Manganiello** and **Alexander Vetter**. *Batch Codes from Hamming and Reed-Müller Codes.*

Batch codes, introduced by Ishai *et al.*, encode a string $x \in \Sigma^k$ into an m-tuple of strings, called buckets. In this talk we consider multiset batch codes wherein a set of t-users wish to access one bit of information each from the original string. We introduce a concept of optimal batch codes. We first show that binary Hamming codes are optimal batch codes. The main body of this work provides batch properties of Reed-Müller codes. We look at locality and availability properties of first order Reed-Müller codes over any finite field. We then show that binary first order Reed-Müller codes are optimal batch codes when the number of users is 4 and generalize our study to the family of binary Reed-Müller codes which have order less than half their length. (Received January 16, 2018)