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Eduardo A Sala-Ramirez* (eduardoabnel@gmail.com), Urbanización Santa Elvira, Calle Santa María G-18, Caguas, PR 00725, and **Dylan G Cruz-Fonseca**. *Binary Goppa Codes from Trace Polynomials*. Preliminary report.

Linear Codes are algebraic objects which are used in the digital communications. In particular, linear codes introduce a particular kind of redundancy in order to make communications reliable and resistant to errors. Several codes are constructed with powerful algebraic techniques. Binary Goppa codes are linear codes made from univariate polynomial evaluations. They have promising applications in Forward Error Correction and Cryptography. In this talk we study a class of Binary Goppa codes where the defining polynomial is a trace function of degree three. We show some improvements over previously known bounds on the dimension of the codes. (Received September 14, 2019)