1147-94-39 Robert Morelos-Zaragoza* (robert.morelos-zaragoza@sjsu.edu), Department of Electrical Engineering, San Jose State University, 1 Washington Square, San Jose, CA 95192-0084. Channel Coding in Wireless Networking Standards. Preliminary report.

In this talk, an overview is given of channel coding schemes used in IEEE 802 wireless networking standards. Perhaps surprisingly, classical error-correcting codes such as Hamming and Reed-Solomon codes are part of modern wireless communication standards that require low latency in order to achieve high link rates. Practical codes used in indoor wireless communications include turbo product codes with BCH codes as components, turbo codes with constituent convolutional codes, and LDPC codes. Most recently, polar codes are included in fifth generation (5G) wireless communication specifications. Ongoing research on good-performance decoding algorithms for short-length polar codes is also presented. (Received January 24, 2019)