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(54) **VARIABLE-TO-FIXED DISTRIBUTION MATCHING FOR PROBABILISTIC CONSTELLATION SHAPING IN WIRELESS COMMUNICATIONS**

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ABSTRACT

Methods, systems, and devices for wireless communications are described. A transmitting device may perform distribution matching on at least a first subset of a set of bits, such as the bits of transport block. The distribution matching may include a variable-to-fixed (v2f) distribution matching procedure in which a ratio between a quantity of input bits to output interim symbols for the v2f distribution matching procedure is variable. The distribution matching include evaluating, after each instance of the v2f distribution matching procedure, whether additional bits remain for distribution matching, and if so, whether to perform an additional instance of the v2f distribution matching procedure or an alternative distribution matching procedure on the remaining bits. Corresponding techniques for a receiving device are also described, including distribution dematching techniques based on a v2f distribution dematching procedure.

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