

# **On Near-Capacity Signaling and Coding Scheme for the Additive White Gaussian Noise Channel**

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We consider constellation shaping for bit-interleaved coded modulation that approaches the capacity of the AWGN channel with Gaussian channel input. Some constellations are designed and evaluated in terms of information rate. The performance of coded systems with low-density parity-check codes and iterative joint demodulation and decoding is also evaluated.