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(54) **SYSTEMS AND METHODS FOR NYQUIST
ERROR CORRECTION**

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ABSTRACT

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The present invention is directed to communication systems and methods. In a specific embodiment, the present invention provides a receiver that includes an error correction module. A syndrome value, calculated based on received signals, may be used to enable the error correction module. The error correction module includes an error generator, a Nyquist error estimator, and a decoder. The decoder uses error estimation generated by the Nyquist error estimator to correct the decoded data. There are other embodiments as well.

