

Abstract**Communication Systems with Hybrid Automatic Repeat Requests
(HARQ) and Rate Matching**

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A receiver for a HARQ communication system includes a buffer for storing a signal derived from a message. The signal is transmitted to the receiver at a first coding rate. The receiver also includes a decoder which accepts signals having a second coding rate, and a rate dematcher which converts signals
10 from the first coding rate to the second coding rate. The rate dematcher is arranged to process either a combination of the received signals (in the case that the received signals are noisy versions of identical signals transmitted within the communications network) or simply the set of received signals. In either case, the dematcher forwards the results to the decoder. Provided that
15 the second coding rate is lower than the first coding rate, the amount of memory required by the buffer is reduced by locating the buffer before the rate dematching unit.

[Fig. 3]

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