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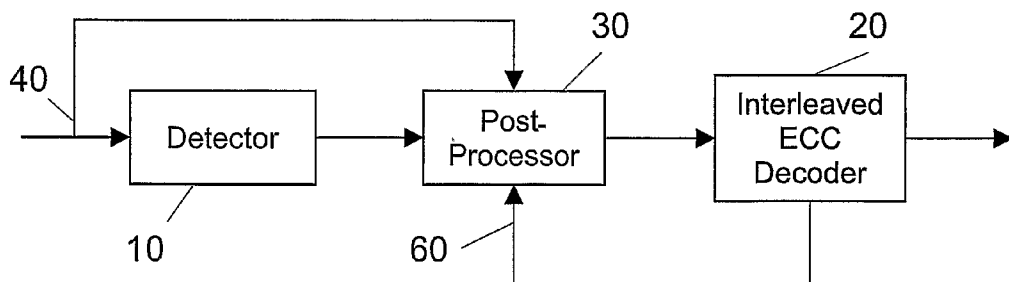
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(54) Title: DATA STORAGE SYSTEMS



(57) Abstract: Described is a method and apparatus for decoding data in a data storage system. In operation, a detector generates an output bit stream in dependence on a data block received from a storage subsystem of the data storage system. A post processor connected to the detector generates a first error corrected bit stream in dependence on the output bit stream and the data block. An error correction decoder connected to the post processor generates a second error corrected bit stream in dependence on the first error corrected bit stream and also generates a checksum in dependence of the second error corrected bit stream. A feedback path supplies from the error correction decoder to the post processor pinning data indicative of locations of correct bits in the second error corrected bit stream in the event that the checksum is indicative of errors in the second error corrected bit stream and the second error corrected bit stream comprises at least one correct interleave. The post processor regenerates the first error corrected bit stream in dependence on the pinning data received from the error correction decoder.

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