



UCL Department of Computer Science
CS M038/GZ06: Mobile and Cloud Computing
Spring 2014
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One-pager: Rateless Spinal Codes (Perry, et al., 2011) Due: Start of lecture, 5th February 2014

Instructions: *in your own words*, answer the following questions as **succinctly** as possible (in 200–500 words total, but shorter answers within this range are encouraged). Quoting figures or text from the assigned reading or from any other source is specifically prohibited.

Suppose you were implementing Spinal Codes on a radio whose transmit digital to analog converter provided 12 bits of resolution in each of the two dimensions.¹

What values would you choose for c (the number of bits used in Spinal Codes' deterministic constellation mapping function)? What would be the effect of choosing c lower than this value? What would be the effect of choosing c higher than this value?

¹In other words, constellation points passed to the radio for transmission must be represented as a pair of 12-bit numbers.