

Discussion 1

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Question:

Please refer to slides L3_NCC_ho page 57 and L4_CCC_ho page 6. In this discussion, you are asked to modify the Blahut-Arimoto algorithm in order to compute the capacity with average input cost constraint. You may implement the algorithm on some asymmetric channels (e.g. Z channel, where $P_{Y|X} = \begin{bmatrix} 1 & 0 \\ \alpha & 1 - \alpha \end{bmatrix}$) and some general input cost constraints to present your result.