

## **LEARNING OBJECTIVES - Lecture 22 (Blahut-Arimoto)**

*After attending lecture and completing the associated readings, you should be able to:*

1. Describe the basic results of Csiszar and Tusnady on alternating minimization algorithms.
2. Derive the variational formulations of channel capacity and rate distortion that enable the Blahut-Arimoto algorithms.
3. Implement the Blahut-Arimoto algorithms for computing rate-distortion and capacity-cost functions.
4. Describe, at a high level, the mapping approach and the cutting plane approach to computing rate-distortion and capacity functions, respectively.