

INFORMATION THEORY

Syllabus : (10-13 hrs., 10-13 wks.)

Review of probability theory.

Concept of information, average information content, conditional entropy, mutual information, channel capacity : discrete memoryless channel, binary symmetric channel, continuous channel.

Source coding : Shannon source coding theorem, Shannon-Fano encoding, Huffman encoding, Tunstall encoding, run-length encoding. Zip-Lempel universal source coding.

References

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