

# Introduction to Algorithmic Information Theory, Belief Propagation, Graph Signal Processing, and Deep Reinforcement Learning

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## Information Information Theory

Compression (Entropy):

$$H(X) = - \sum_x p(x) \log_2 p(x)$$

Capacity:

$$SIR = I(X;Y) = H(X) - H(X|Y)$$

## Bayesian Statistics

Belief Propagation: We can use Belief propagation to calculate the channel Capacity of some Markov chain...[and so on](#)