Coordinating Caching, Communications and Computation in Networks
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What are the theoretical limits of geographic caching? Where to cache what files so as to minimize delay or bandwidth use?

High throughput solutions to maximize speed of delivery or minimize overall completion time.

Example rate region for the zero distortion distributed functional compression problem.

Multiple access for delay sensitive machine-type communications.

Scalable solutions to maximize speed of delivery or minimize overall completion time.

Machine learning to recover the semantic meaning of sentences.

Distributed neural network computation.