

# Deep Learning: Mathematical Foundations and Applications to Information Science

*IEEE Journal on Selected Areas in Information Theory*

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## Call for Papers

This special issue will focus on the mathematical foundations of deep learning as well as applications across information science. Prospective authors are invited to submit original manuscripts on topics within this broad scope including, but not limited to:

- Information theoretic methods for deep learning
- Robustness for training and inference
- Understanding generalization in over-parametrized models
- Efficient and compressed model representations
- Deep generative models and inverse problems
- Large-scale efficient training of large models
- Non-convex optimization in deep learning
- Deep learning for source and channel coding.

## Guest Editors

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## Submission Guidelines

Prospective authors must follow the *IEEE Journal on Selected Areas in Information Theory* guidelines regarding the manuscript and its format. For details and templates, please refer to the *IEEE Journal on Selected Areas in Information Theory* [Author Information](#) webpage. All papers should be submitted through Scholar One according to the following schedule:

## Important Dates

**Manuscript Due:** 1 October 2019

**Acceptance Notification:** 15 March 2020

**Final to Publisher:** 5 April 2020

**Expected Publication:** April/May 2020