



## Networks that Learn: Towards Autonomous Network Systems

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submissions:

**closed (31 July 2018)**

### Message from the Guest Editors

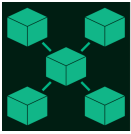
Dear Colleagues,

With this special issue, our interest is centered around "networks that learn", where artificial intelligence tools are applied to the optimization of communication networks. We believe that learning and adaptation will be key to achieve the maximum level of spectrum efficiency, by letting competing systems to autonomously cooperate with one another, simultaneously understanding the surrounding environment and adapting to it. Along these lines, a relevant initiative is DARPA's Spectrum Collaboration Challenge, which aims at exploiting machine learning to overcome the scarcity in the radio frequency spectrum and is pushing towards a so called network autonomy.

In conclusion, we encourage the submission of papers on the latest advances on machine learning applied to communication systems. In particular, we warmly welcome submissions addressing, but not limited to, the following topics:

- Autonomous network optimization through machine learning
- Radio frequency characteristics identification and fingerprinting
- Traffic pattern analysis
- Blind spectrum cooperation strategies (i.e., no primary network is known in advance)





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## Editor-in-Chief

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## Message from the Editor-in-Chief

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