Radio Frequency Machine Learning (RFML) Applications

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Deadline for manuscript submissions:
closed (30 April 2023)

Message from the Guest Editors

In recent years, radio frequency machine learning (RFML) has seen a massive increase in interest due to the ever-increasing capabilities of state-of-the-art deep learning technologies, especially in other modalities such as image recognition, natural language processing, etc. This is especially true for spectrum sensing (signal detection, estimation, classification, and identification) and cognitive radio (intelligent digital signal processing, reconfigurable communications, etc.) applications.This Special Issue aims to highlight advances in the deployment and realization of these technologies in real systems. Topics include, but are not limited to:

- RFML solutions for realistic spectral environments/scenarios;
- RFML deployment considerations (e.g., SWaP considerations for IoT);
- RFML intuition improvements (increased interpretability, uncertainty/reliability metrics, etc.);
- RFML datasets for improving training/deployment outcomes (synthetic, captures, augmented, etc.);
- Optimized toolchains and processing approaches for RFML modalities.

Special Issue

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Message from the Editor-in-Chief

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