



Contribution ID: 56

Type: **not specified**

## Trustworthy Federated Learning in Healthcare

*Wednesday, 15 May 2024 10:30 (25 minutes)*

Machine learning has transformed many industries, being employed not only on large centralized datasets, but increasingly on data generated by a multitude of networked, complex devices such as mobile phones, autonomous vehicles or industrial machines. However, data-privacy and security concerns often prevent the centralization of this data, most prominently in healthcare. Federated learning allows to train machine learning models in-situ, i.e., on the data-generating devices, without sharing data. For federated learning to be applicable in critical applications, such as healthcare, however, it must be trustworthy. That is, we need theoretical sound guarantees on data privacy and model performance. I will present the main challenges for achieving trustworthiness in federated learning, as well as recent approaches that address these challenges.

### Type of presentation

Invited Talk

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**Session Classification:** Invited session

**Track Classification:** Spring Meeting