ID de Contribution: **18** Type: **Talk (Long)**

Empowering neursocience with AI

vendredi 12 juillet 2024 10:15 (45 minutes)

Recent years have witnessed intense interactions between cognitive neuroscience and artificial intelligence, with the deep learning revolution driving new developments in neuroscience.
A first aspect concerns the processing of neuroscience data, which is often in the form of time courses. These data are often short and noisy, and suffer from poorly controlled confounding effects. AI-powered signal processing provides solutions that enhance the information contained in the data. We will discuss in detail how Riemannian geometry benefits covariance-based modeling of neuroscience data.
Another prominent interaction concerns representation-based modeling, where cognitive neuroscience and modern AI models share similar concepts. This has made it possible to build models of brain decoding with unprecedented accuracy, and to move towards cross-modal representations of cognitive content.

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Classification de Session: Neuroscience

Classification de thématique: Invited talks