CRUNCH Seminars at Brown, Division of Applied Mathematics

Friday - January 21, 2022

Qian Zhang, Brown University

JAX is an open-source python library designed for high-performance numerical computing, especially machine learning research. In addition to its NumPy-like API, it features a flexible auto-differentiation system, vectorization, and JIT-compilation powered by XLA. JAX has enabled rapid experimentation with novel algorithms and architectures in DeepMind. Its features demonstrate its potential in making the code of PINN and DeepONet concise, clear, and easy to maintain. Some demo examples written in JAX will be discussed, which include feature usage and real application in research.