fast machine learning for science

Contribution ID: **148**   Type: **not specified**

Fast inference with Decision Forests

Friday 5 September 2025 09:00 (20 minutes)

Decision Forests such as Random Forests and Gradient Boosted Trees are an effective and widely used class of models for machine learning, particularly for tabular data and forecasting. This talk covers the practical use and ongoing research on Decision Forests at Google. We provide a brief overview of decision forest modeling with a focus on novel split conditions. We will analyze their impact on model quality as well as on performance characteristics during training and inference. Then, we discuss a variety of real-world applications for these models. Finally, we will explore how algorithmic approaches to structuring tree traversal can be optimized for diverse hardware architectures, including CPUs, GPUs, and FPGAs.

Presenter: STOTZ, Richard (Google Zurich)

Session Classification: Invited talks

Track Classification: Invited Talks