

evermore - Differentiable Binned Likelihood Functions with JAX

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evermore is a python package that provides building blocks for building and evaluating (binned) likelihood functions in high-energy physics using JAX. The key concepts of evermore are performance and differentiability. JAX provides automatic differentiation, just-in-time (jit) compilation, and vectorization capabilities, which can be leveraged to improve the performance of statistical analyses. Jit-compilation and vectorization can be used for parallelizing fits on GPUs which is especially advantageous for likelihood scans and toy based upper limits.

We present the concepts of evermore and show its features.

Primary authors: FISCHER, Benjamin (RWTH Aachen University (DE)); ZINN, Felix Philipp (RWTH Aachen University); FACKELDEY, Manfred Peter (Princeton University)

Presenter: ZINN, Felix Philipp (RWTH Aachen University)

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