



Contribution ID: 403

Type: Poster

## Diffraction Vector Meson production using Sartre with Machine Learning

Friday 16 December 2022 14:00 (1 hour)

We use Machine Learning with an event-generator (Sartre) for

the process:  $e$

$$p \rightarrow e' p' V_M, e A \rightarrow e' A' V_M.$$

Sartre uses 3-dimensional look-up tables to generate events

in which the first two moments of the Amplitude are stored. In eA collisions the generation of these lookup tables takes many months. I will present a method, using neural networks, which reduces the computing time by up to 90%. This will be important for doing simulations in the ongoing preparations for the electron-ion collider.

### Session

Heavy Ions and QCD

**Author:** SINGH, jaswant (student)

**Co-author:** TOLL, Tobias

**Presenter:** SINGH, jaswant (student)

**Session Classification:** Poster - 4