

# A machine learning approach for mass composition analysis with TALE-SD data

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The TALE experiment is a TA low-energy extension to observe cosmic rays with energies down to 1016.5 to clarify the origin of the second knee and the energy of a galactic-to-extragalactic transition. TALE consists of 10 high-elevation fluorescence detectors and 80 scintillation counters in an area of 21km<sup>2</sup>. The key of data interpretation is the mass composition of cosmic rays, and we will report on a machine learning approach of mass composition analysis that utilizes waveform data of TALE scintillation counters.

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