Predicting CME transit time with neural networks

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We compiled a list of coronal mass ejections (CMEs) with known source position and their associated interplanetary CMEs, identified using in-situ measurement at Earth and determined their travel time to Earth. Using this dataset we constructed and trained the neural network to estimate the travel time to Earth based on the initial parameters of the CMEs. The analysis is mainly focused on the first order (linear) CME speed derived from LASCO measurements and central meridian distance of the CME source position (as derived from associated solar flare).