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Unsupervised Machine Learning Based on Tensor Factorization

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In general, unsupervised machine learning (ML) methods are powerful tools for data analyses to extract essential features hidden in data. The integration of large datasets, powerful computational capabilities, and affordable data storage has resulted in the widespread use of ML in science, technology, and industry. Here we present applications of ML to characterize (1) reactive transport data observed at groundwater contamination sites, and (2) model simulations representing fast irreversible bimolecular reactions. Our ML method is based on Tensor Factorization techniques and is applied to reveal the temporal and spatial features in the analyzed data

References

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