

# Introducing ML Components into NWP Models: Challenges and Perspectives

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During the last several years machine learning (ML) has become a popular tool in numerical weather prediction (NWP) that is intensively investigated and promises to enable modelers to speed up calculations, improve data assimilation, model physics, and post processing model outputs.

In this presentation, after a brief review of the current status of using ML in different constituents of NWP, some challenges that are met when developing and introducing ML components into numerical weather prediction models are considered. Challenges related to deep learning models, parallelization of developed ML tools in NWP models, and some other issues are discussed.