

# Predicting lake surface water phosphorus dynamics using process-guided machine learning

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What did the authors try to accomplish?

- predicting phosphorus loading in lakes over time
- used Process-guided machine learning (PGML)
- introduced Process-Guided Recurrent Neural Network (PGRNN)
  - a hybrid model

What were the key elements of the approach?

- model-based output is used as a second input into the data-based model (RNN)

What parts can you use yourself?

- example of a hybrid model using RNN to predict values over time

What other references do you want to follow?

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