

## **Noninvasive support for interdisciplinary model integration**

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**Abstract.** The Model Data Passing Interface (MODPI) is a noninvasive and interoperable framework for integrating geophysical models with fine-grained, multidirectional feedbacks during parallel simulation. MODPI only requires directives as comments within the model source code, and generates event constructs and a model wrapper automatically to support plug-and-play with other MODPI-compatible models. In a case study application, only 13 and 32 lines of code are modified to link two models with more than 23,000 and 9,000 lines of code, respectively.