Enhanced Parallel Numerical Simulations of Carbon Capture and Storage

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In the context of greenhouse gas emission into the atmosphere, CO2 capture and storage into geological formation has been considered recently as one of the mitigation option. Mathematical models are essential tools in addressing problems that arise in the context of CO2 storage in the deep subsurface. We enhance the parallel scalability of the Tough-MP (LBNL) code to consider large scale complex modeling and this talk will discuss the parallel strategies used in this context.