

## Computational modeling of subsurface systems

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Subsurface systems are often characterized using the time-drawdown data from one or more pumping test conducted at site of interest. The collected time-drawdown data is then fitted to numerical or analytical models to infer the subsurface characteristic properties. The use highly sophisticated numerical model along with the simple analytical model is used to infer the subsurface properties at the Los Alamos aquifer. The methods, obtained results and path forward for further study will be discussed.

### Biography

Phoolendra Mishra received his PhD in Hydrology from the University of Arizona. His dissertation work on characterizing vadoze zone hydraulic properties on realistic field scales by means of pumping tests was supported by the Department of Energy. He received several awards including John and Margaret Hershberger doctoral fellowship, Hargis award, Eugene S. Simpson fellow in groundwater, Geosyntec, Inc. Best Student Research Paper award and Deutscher Akademischer Austausch Dienst fellowship. Upon graduation he was awarded postdoctoral research associate fellowship from the Los Alamos National Laboratory, Los Alamos, New Mexico. His research interests span the areas of modeling flow and transport in subsurface, well hydraulics, coupled processes modeling, contaminant source identification, parameter estimation and uncertainty quantification.

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