



Chemical & Physical Sciences

UNIVERSITY OF TORONTO

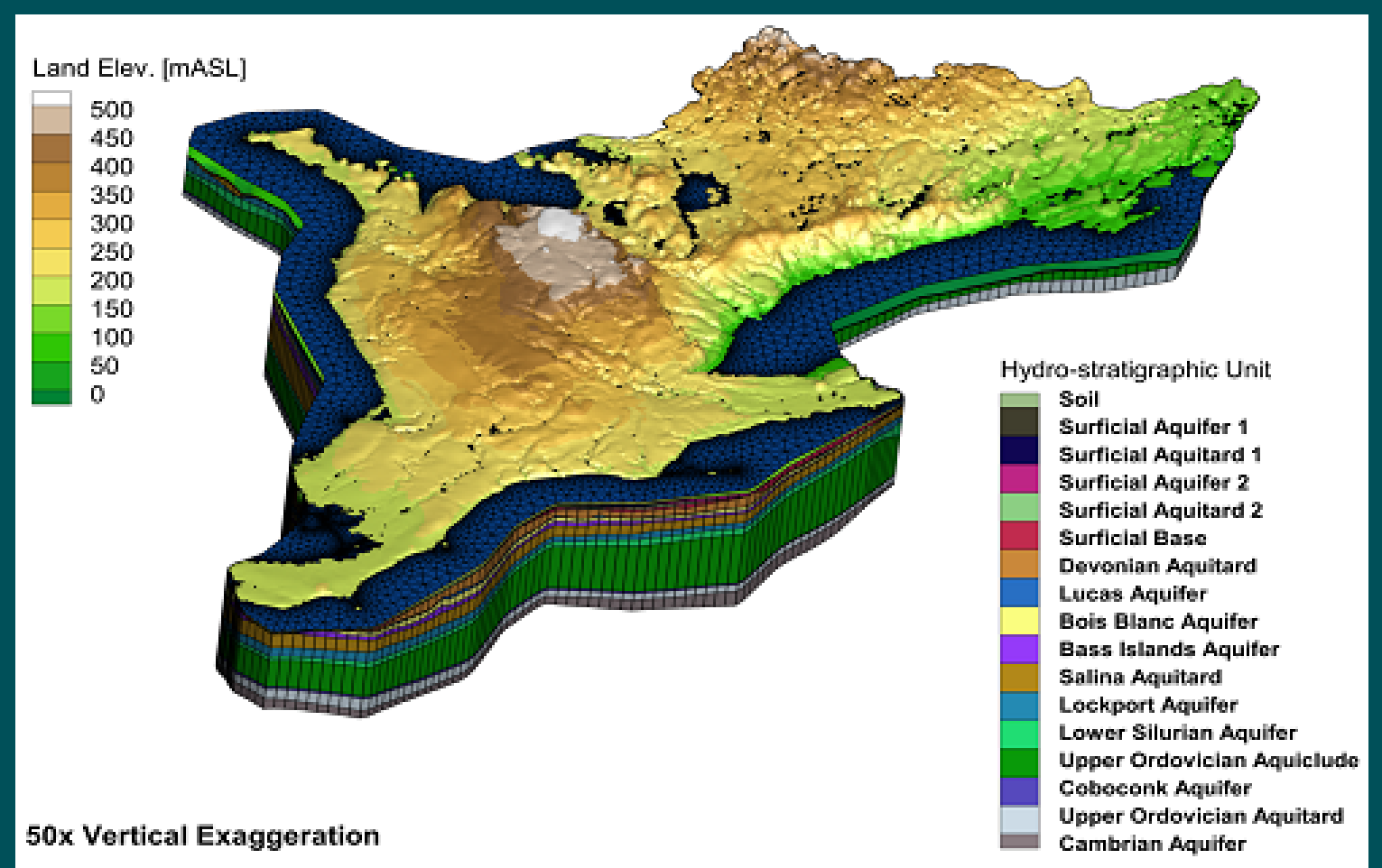
MISSISSAUGA

COLLOQUIUM SEMINAR SERIES

FULLY-INTEGRATED HYDROLOGIC MODELING: FROM "ARTIST'S CONCEPTION" TO CURRENT STATE-OF-THE-ART



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Fully-integrated hydrologic models, wherein groundwater and surface water flow are coupled within the same simulation framework were first conceptualized over 50 years ago, and have evolved into what is perhaps the most vigorous means of simulating the terrestrial hydrologic system. Within the hydrologic sciences, the study of water flow and chemical transport processes, climate change influences on the hydrologic cycle, and land use change impacts on water quantity and quality are a few of many applications of fully-integrated models.

In this presentation, a brief history of fully-integrated modeling will be presented that will take the audience back to the seminal paper on the topic, published in 1969. Following the look back, current state-of-the-art fully-integrated model applications related to groundwater and surface water sustainability, agricultural impacts on water quality, and anthropogenic tracers (i.e. artificial sweeteners) will be discussed. The presentation will conclude with a glimpse into the future of fully-integrated models.

Colloquium Seminar Series

Wednesday, October 6, 2021

Join us on Zoom at 3:10pm

<https://utoronto.zoom.us/j/84409166490>