

MULTI-SCALE ENVIRONMENTAL AND MATERIAL MODELING

This is an interdisciplinary interest area with a special focus on the following topical areas. Explore faculty research options through the URLs provided.



- water-land-atmosphere interactions at the various spatial and temporal scales
 - Avissar <http://www.cee.duke.edu/faculty/avissar/index.php>
 - Albertson <http://www.duke.edu/~jda4h/research.html>
 - Barros <http://barros-group.cee.duke.edu/>
 - Porporato <http://www.cee.duke.edu/faculty/porporato/index.php>
- nanomaterial transport in aquifers and filters
 - Wiesner <http://wiesner.cee.duke.edu/?q=node/14>)
<http://pubs.acs.org/cgi-bin/abstract.cgi/esthag/2004/38/i19/abs/es0352303.html>
- aggregation and stabilization of nanoparticulate metal-sulfides
 - Hsu-Kim http://hsukim.pratt.duke.edu/metal_sulfide_nanoparticles
- evolving interfaces
 - Dolbow <http://dcml.pratt.duke.edu/evolint.shtml>
- multi scale approach to chemo-mechanic coupling in soils
 - Hueckel http://www.duke.edu/~hueckel/frame/multi_scale_approach.htm
- multi-scale vibration control algorithms
 - Gavin <http://www.duke.edu/~hpgavin/research.html>
- multi-scale modeling of effective moduli of functionally graded materials
 - Nadeau <http://www.cee.duke.edu/faculty/nadeau/index.php>