

## Rohit Salve

**Address:** Earth Sciences Division, Lawrence Berkeley National Laboratory  
One Cyclotron Road, Berkeley, CA 94707  
**Phone:** 510 486 6416  
**Email:** R\_Salve@lbl.gov

### PROFESSIONAL PREPARATION

1989-95      **Ph.D.** University of California, Berkeley, CA  
1987-89      **Masters in Forest Science.** Yale University, New Haven, CT.  
1986-87      **B.A. in Environmental Studies.** World College West, Petaluma, CA.  
1976-81      **B.S. in Agriculture.** Allahabad Agricultural Institute, Allahabad, India.

### EMPLOYMENT

Present      **Staff Scientist:** Earth Sciences Division, Lawrence Berkeley National  
Laboratory, Berkeley.  
1997-2000    **Principal Research Associate:** Earth Sciences Division, Lawrence  
Berkeley National Laboratory, Berkeley.  
1995-97      **Postdoctoral Fellow:** Earth Sciences Division, Lawrence Berkeley  
National Laboratory, Berkeley.  
1995          **Adjunct Faculty:** New College of California.  
1993-95      **Graduate Research Assistant:** Earth Sciences Division, Lawrence  
Berkeley National Laboratory, Berkeley.  
1989          **Consultant:** Ford Foundation, New Delhi, India. Developed strategies for  
joint management of forested watersheds.  
1985-86      **Research Fellow:** Doon Valley Eco-Systems Project, Dehra Dun, India.  
Conducted socio-economic surveys, land-use mapping and farm and forest  
productivity measurements.

## PUBLICATIONS

- St.Clair, S.B., E.A. Sudderth, M.L. Fischer, M.S. Torn, S. Stuart, R. Salve, D. Eggett, and D.D. Ackerly, 2009, Soil drying and nitrogen availability modulate carbon and water exchange over a range of annual precipitation totals and grassland community types, *Global Change Biology*, 15: 3018-3030, doi: 10.1111/j.1365-2486.2009.01862.
- Salve, R., N. Y. Krakauer, M.B. Kowalsky, and Stefan Finsterle, 2008, A qualitative assessment of microclimate perturbations in a tunnel, *Int. J. of Climatology*, doi: 10.1002/joc.1697.
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- Salve, R., 2005. Observations of preferential flow during a liquid release experiment in fractured welded tuffs, *Water Resources Research* 41:doi:10.1029/2004WR003570.
- Salve, R., and T. Kneafsey, 2005. Vapor-phase transport in the near-drift environment at Yucca Mountain, *Water Resources Research* 41: doi:10.1029/2004WR003373.
- Salve, R., D. Hudson, H.H. Liu, and J.S.Y. Wang, 2005. Wang, Development of a wet plume following liquid release along a fault, *Vadose Zone Journal*, 4: 89-100.
- Salve, R., 2005. A passive-discrete water sampler for monitoring seepage. *Groundwater*, 43: 133-137.
- Salve, R., H.H. Liu, Q. Hu, D. Hudson, P. Cook, and A. Czarnomski, 2004. Unsaturated flow and transport through a fault embedded in fractured welded tuff, *Water Resources Research* 40: doi:10.1029/2003WR002571.
- Liu, H.H., R. Salve, J.S.Y. Wang, G.S. Bodvarsson and D. Hudson, 2004. Field investigation into unsaturated flow and transport in a fault: Model analysis, *Journal of Contaminant Hydrology*, 74: 39-56.
- Salve, R., C.M. Oldenburg and J.S.Y. Wang, 2003. *In Situ* flow experiments in nonwelded tuff: Conceptual models and implications for flow in the PTn, *Journal of Contaminant Hydrology*, 62-63: 269-286.
- Faybishenko, B., G.S. Bodvarsson, and R. Salve, 2003. On the physics of unstable infiltration, seepage, and gravity drainage in partially saturated tuffs, *Journal of Contaminant Hydrology*, 62-63: 63-87.

- Cook, P.J., R. Salve, B.M. Freifeld, and Y.T. Tsang, 2003. A measurement system for systematic hydrological characterization of unsaturated fractured welded tuff in a mined underground tunnel, *Groundwater*, 41: 449-457.
- Salve, R. 2002. An automated tunnel evaporation measurement system for confined spaces, *Hydrological Processes*, 16: 1101-1109.
- Salve, R., and T.K. Tokunaga, 2002. Seepage response along an alluvial valley in a semi-arid catchment in north-central California, *Hydrological Processes*, 16: 65-86.
- Salve, R., J.S.Y. Wang and C. Doughty, 2002. Liquid flow in unsaturated fractured welded tuffs: I. Field Investigations, *Journal of Hydrology*, 256: 60-79.
- Doughty, C., R. Salve, and J.S.Y. Wang, 2002. Liquid flow in unsaturated fractured welded tuffs: II. Numerical Modeling, *Journal of Hydrology*, 256: 80-105.
- Salve, R., and C.M. Oldenburg, 2001. Water flow in a fault in altered nonwelded tuff, *Water Resources Research*, 37: 3043-3056.
- Hu, Q., R. Salve, W. Stringfellow, and J.S.Y. Wang, 2001. Field tracer transport tests in unsaturated fractured tuff, *Journal of Contaminant Hydrology*, 51: 1-12.
- Salve, R., and B. Allen-Diaz, 2001. Variations in flow in a rangeland catchment, *Journal of Range Management*, 54: 44-51.
- Salve, R., and T.K. Tokunaga, 2000. Flow processes in a rangeland catchment in California, *Journal of Range Management*, 53: 489-498.
- Salve, R., J.S.Y. Wang and T.K. Tokunaga, 2000. A probe for measuring wetting front migration in rocks, *Water Resources Research*, 36: 1359-1367.
- Salve, R., 1998. Near surface wetting of a ponded basalt surface: Observations using time domain reflectometry, *Journal of Hydrology*, 208: 249-261.
- Tokunaga, T.K., and R. Salve, 1994. Gauge sensitivity and optimization in air-pocket tensiometry: Implications for deep vadose zone monitoring, *Soil Science*, 158: 389-397.

### **SELECTED RECENT PRESENTATIONS (as first author)**

- Salve, R., E. A. Sudderth, S. B. St. Clair, M. S. Torn, The impact of Precipitation and Grassland Vegetation on Soil Moisture Dynamics, American Geological Union, Fall Meeting, San Francisco, CA, December 2009
- Salve R., A. Uccelli, W. E. Dietrich and I. Fung, Measuring Moisture Dynamics in Soil and Rock Along a Steep Forested Catchment, American Geological Union, Fall Meeting, San Francisco, CA, December 2007.
- Salve, R., and T. A. Ghezzehei, *Infiltration in Fractured Welded Tuffs*, The Geological Society of American 2005 Annual Meeting, Salt Lake City, Utah, October 2005.
- Salve, R., *Properties of Flow Zones in Fractured Rock*, American Geological Union, Fall Meeting, San Francisco, CA, December 2004.
- Salve, R., and T. Kneafsey, *Vapor-phase transport in the near-drift environment at Yucca Mountain*, American Geological Union, Fall Meeting, San Francisco, CA, December 2003.
- Salve, R., C.M. Oldenburg, and J.S.Y. Wang, *The interactions between faults and the matrix in paintbrush group nonwelded tuff at Yucca Mountain*, The Geological Society of American 2002 Annual Meeting Denver, Colorado, October 2002.
- Salve, R., H.H. Liu and Q. Hu, *Tracer transport along a vertical fault located in welded tuffs*, American Geological Union, Fall Meeting, San Francisco, CA, December 2002.
- Salve, R., *Investigations of fast flow paths at Yucca Mountain*, Invited lecture to the Department of Geological Sciences, University of South Carolina, Columbia, SC, September 2002.

### **COLLABORATORS (Current Research)**

- David Ackerley , (Department of Integrative Biology, UCB)
- Todd Dawson (Department Integrative Biology, UCB)
- William Dietrich (Department of Earth and Planetary Science, UCB)
- Mary Firestone (Department of Environmental Science, Policy and Management, UCB)
- Marc Fischer (Environmental Energy Technology Division, LBNL)
- Stefan Finsterle (ESD, LBNL)
- Inez Fung (Department of Earth and Planetary Science, UCB)
- Don Herman (Department of Environmental Science, Policy and Management, UCB)
- Kevin Lesko (Dusel Project, UCB)
- William Roggenthen ((South Dakota School of Mines and Technology)
- Margaret Torn (ESD, LBNL)
- Sam. St. Clair (Department of Plant and Wildlife Sciences, Brigham Young University)
- Larry Stetler (South Dakota School of Mines and Technology)
- Erika Sudderth (Brown University)