

# **BWALYA MALAMA**

---

Boise State University, CGISS/Dept. Of Geosciences  
1910 University Drive, MG206, Boise, Idaho 83725-1536  
tel: 208-426-2959, email: [bmalama@cgiss.boisestate.edu](mailto:bmalama@cgiss.boisestate.edu)

## **EDUCATION**

Ph.D. in **Hydrology** (groundwater), with **Mathematics** minor, University of Arizona, 2006  
MS in Mining, Geological and Geophysical Engineering, University of Arizona, 2001  
BS (Honors) in Mining Engineering, University of Arizona, 1999

## **EMPLOYMENT**

2008-Present

**Assistant research professor**, CGISS & Department of Geosciences, Boise State University

2006-2008

**Postdoctoral research assistant**, CGISS & Department of Geosciences, Boise State University

2003-2006

**Research associate**, Department of Hydrology and Water Resources, University of Arizona

1999-2003

**Research assistant**, Department of Mining and Geological Engineering, University of Arizona

## **TEACHING EXPERIENCE**

01/2008-Present

**Instructor**, Applied Hydrogeology, Department of Geosciences, Boise State University

08/2007-12/2007

**Instructor**, Advanced Hydrogeology, Department of Geosciences, Boise State University

01/2006-05/2006

**Adjunct faculty**, Mathematics, Pima Community College, Tucson, Arizona

01/2003-05/2003

**Graduate instructor**, Mine Ventilation, Department of Mining and Geological Engineering, University of Arizona

## **PUBLICATIONS**

**Malama, B.**, Revil, A. and Kuhlman, K. L. (2009) *A semi-analytical solution for transient streaming potentials associated with confined aquifer pumping tests*, Geophysical Journal International, 176, 1007-1016, doi:10.1111/j.1365-246X.2008.04014.x

**Malama, B.** and Barrash, W. (2009) *Flow in the neighborhood of a confined aquifer observation well*, Journal of Hydrology, 364 (1-2), 107-114, doi:10.1016/j.jhydrol.2008.10.014

Cardiff, M., Barrash, W., Kitanidis, P.K., **Malama, B.**, Revil, A., Straface, Rizzo, E. (2009) *A potential-based inversion of unconfined steady-state hydraulic tomography*, Ground Water, 47(2), 259-270, doi:10.1111/j.1745-6584.2008.00541.x

Jardani, A., Revil, A., Crespy, A., Rizzo, E., Straface, S., Cardiff, M., Barrash, W., **Malama, B.**, Miller, C., and Johnson, T. (2009) *Reconstruction of the Water Table from Self-Potential Data: A Bayesian Approach*, Ground Water, 47(2), 213-227, doi:10.1111/j.1745-6584.2008.00513.x

**Malama, B.**, Kuhlman, K. L. and Barrash, W. (2008) *Semi-analytical solution for flow in a leaky unconfined aquifer toward a partially penetrating pumping well*, Journal of Hydrology, 356(1-2), 234-244, doi:10.1016/j.jhydrol.2007.08.018

**Malama, B.**, Kuhlman, K. L. and Barrash, W. (2007) *Semi-analytical solution for flow in leaky unconfined aquifer-aquitard systems*, Journal of Hydrology, 346(1-2), 59-68, doi:10.1016/j.jhydrol.2007.08.018

Jardani, A., Revil, A., Bolève, A., Crespy, A., Dupont, J-P., Barrash, W. and **Malama, B.** (2007) *Tomography of the Darcy velocity from self-potential measurements*, Geophysical Research Letters, 34, L24403, doi:10.1029/2007GL031907.

Kulatilake, P.H.S.W., Park, J. and **Malama, B.** (2006) *A new rock mass failure criterion for biaxial loading conditions* [Geotechnical and Geological Engineering](#), Volume 24 (4), pp. 871-888

**Malama, B.**, Kulatilake, P.H.S.W., (2003) *Models for normal fracture deformation under compressive loading*, International Journal of Rock Mechanics and Mining Sciences, Vol. 40, (6), p. 893-901

Kulatilake, P.H.S.W., **Malama, B.** and Wang, J. (2001) *Physical and particle flow modeling of jointed rock block behavior under uniaxial loading*, International Journal of Rock Mechanics and Mining Sciences, Vol. 38, (5), p. 641-657

## ABSTRACTS

**Malama, B.**, Revil, A., Kuhlman, K. L., (2008) *A semi-analytical solution for transient streaming potentials associated with confined aquifer pumping tests*, AGU Fall Meeting

Barrash, W., Bradford, J., **Malama, B.**, (2008) *Boise Hydrogeophysical Research Site: Control Volume/Test Cell and Community Research Asset*, AGU Fall Meeting

Thoma, M., **Malama, B.**, Bradford, J., Barrash, W., Johnson, B., Hinz, E., Murray, S., (2008) *Using Ground Penetrating Radar to Monitor Transient Unconfined Aquifer Response to Pumping*, AGU Fall Meeting

**Malama, B.**, Kuhlman, K. L., Barrash, W. (2007) *Leakage theory for unconfined aquifers*, AGU Joint Assembly

**Malama, B.**, Barrash, W., (2006) *Solute Transport in a Medium with Spatially Variable Porosity*, AGU Fall Meeting

De Simoni, M., Guadagnini, A., Hernandez, A.F., Neuman, S.P., **Malama, B.** (2006) *Assimilation of hydrogeological information for the estimation of the uncertainty associated with well head capture zones*, Atti del XXX Convegno di Idraulica e Costruzioni Idrauliche, Casa Editrice Università degli Studi di Roma "La Sapienza", 201 (full paper on CD-ROM)

**Malama, B.** (2005) *A three-dimensional criterion for rock mass failure*, ARMA/USRMS 05-660, 40th U.S. Rock Mechanics Symposium, Anchorage, Alaska

**Malama, B.**, Neuman, S.P. (2004) *Inverse stochastic moment analysis of transient flow in randomly heterogeneous media*, AGU Fall meeting

**Malama, B.**, Kulatilake, P.H.S.W., Park, J. (2003) *A New Rock Mass Strength Criterion for Biaxial Loading Conditions*, 39th US Rock Mechanics Symposium, MIT

## RESEARCH INTERESTS

Hydrogeophysics; Groundwater-surface water interactions; Stochastic hydrogeology; Contaminant Transport; Hydrogeology in developing countries

## PROFESSIONAL MEMBERSHIPS

American Geophysical Union  
National Ground Water Association