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EDUCATION

- 2008 Doctor of Philosophy. University of Minnesota
- 2005 Master of Science in Civil and Environmental Engineering. Georgia Institute of Technology.
- 2000 Civil Engineering. Pontificia Universidad Católica de Chile.

PUBLICATIONS

- 2011 Escauriaza, C. and Sotiropoulos, F. *Initial stages of erosion and bed-form development in a turbulent flow around a cylindrical pier*. Journal of Geophysical Research 116, F03007.
- 2011 Escauriaza, C. and Sotiropoulos, F. *Lagrangian model of bed-load transport in turbulent junction flows*. Journal of Fluid Mechanics 666, 36-76.
- 2011 Escauriaza, C. and Sotiropoulos, F. *Reynolds number effects on the coherent dynamics of the turbulent horseshoe vortex system*. Flow, Turbulence and Combustion 86, 231-262.
- 2011 Lobo, S., Escauriaza, C. and Celedón, A. *Measurement of surface effects on the rotational diffusion of a colloidal particle*. Langmuir 27, 2142-2145.
- 2010 Paik, J., Escauriaza, C. and Sotiropoulos, F. *Coherent Structure Dynamics in Turbulent Flows past In-stream Structures: Some Insights Gained via Numerical Simulation*. Journal of Hydraulic Engineering 136, 981-993.
- 2009 Escauriaza, C. and Sotiropoulos, F. *Trapping and sedimentation of inertial particles in three-dimensional flows in a cylindrical container with exactly counter-rotating lids*. Journal of Fluid Mechanics 641, 169-193.
- 2007 Paik, J., Escauriaza, C. and Sotiropoulos, F. *On the Bi-modal Dynamics of the Turbulent Horseshoe Vortex System in a Wing-Body Junction*. Physics of Fluids 19, 045107.
- 2005 Loose B., Niño Y. and Escauriaza C. *Finite Volume Modeling of Variable Density Shallow Water Flow Equations for a Well-Mixed Estuary. Application to the Rio Maipo Estuary in Chile*. Journal of Hydraulic Research 46, 339-350.
- 2003 Muñoz J.F., Fernández B. and Escauriaza C. *Evaluation of Groundwater Availability and Sustainable Extraction Rate for the Santiago Valley Aquifer*. Hydrogeology Journal 11, 687-700.

CONFERENCES AND OTHER PUBLICATIONS IN THE LAST 5 YEARS

- 2011 Escauriaza, C., González, C., Guerra, P., Pastén, P., and Pizarro, G. Turbulent mixing in a river confluence controls the fate of contaminated sediments. APS 64th Annual Meeting of the Division of Fluid Dynamics. Baltimore, MD.
- 2011 Dorsaz, J-M., Gironás, J., Escauriaza, C., and Rinaldo, A. Geomorphological characterization of endorheic basins in northern Chile. AGU Fall Meeting 2011. San Francisco, CA.
- 2011 Suarez, L., Cienfuegos, R., and Escauriaza, C. A Lagrangian description of nearshore hydrodynamics and rip currents forced by a random wave field. AGU Fall Meeting 2011. San Francisco, CA.
- 2011 Guerra, M., Cienfuegos, R., Escauriaza, C., and Marche, F. Tsunami Propagation on a Large River. Workshop on Tsunami Hydrodynamics in a Large River. Oregon State University, Corvallis OR.
- 2011 Leiva, E., Ríos, P., Escauriaza, C., Bonilla, C., Pizarro, G., and Pastén, P. Arsenic mobilization in a high Andean watershed impacted by legacy mining. Goldschmidt 2011. Prague, Czech Republic.
- 2011 Sciolla, D., and Escauriaza, C. Modelación de la interacción de turbinas hidrocínicas con el flujo utilizando discos actuadores. XX Congreso Chileno de Ing. Hidráulica. Santiago, Chile.
- 2011 González, C., Pastén, P., Pizarro, G. and Escauriaza, C. Procesos hidrodinámicos y mezcla turbulenta en confluencias fluviales: el caso de los ríos Azufre y Caracarani. XX Congreso Chileno de Ing. Hidráulica. Santiago, Chile.
- 2010 Rodríguez, B. and Escauriaza, C. Turbulent Flow in the Scour Hole Downstream of a Sluice Gate: Erosion induced by Görtler Vortices. Riverflow 2010. International Conference on Fluvial Hydraulics, Braunschweig, Germany.
- 2010 Escauriaza, C. Dynamics of Coherent Structures and Sediment Transport in High-Reynolds Number Turbulent Flows. MECOM 2010, Buenos Aires, Argentina.
- 2010 Escauriaza, C. Numerical Simulations of Coherent Structures in Complex Flows: Applications to Sediment Transport and Erosion in Aquatic Environments (Invited Conference). Fluidos 2010, Colonia, Uruguay.
- 2010 Guerra, M., Cienfuegos, R., Escauriaza, C., and Rosa, E. Modelación Numérica 2D de Crecidas Extremas y Zonas de Inundación en Coordenadas Curvilíneas Generalizadas. XXIV Congreso Latinoamericano de Hidráulica. Punta del Este, Uruguay.
- 2009 Escauriaza, C., and Sotiropoulos, F. The Dynamics of Bed-forms around Scour Holes. 33rd IAHR Congress. Vancouver, Canada.
- 2009 Paik, J., Escauriaza, C., and Sotiropoulos, F. Advanced CFD Modeling of Flows past Complex Hydraulic Structures at High Reynolds Numbers. 33rd IAHR Congress. Vancouver, Canada.

- 2009 Escauriaza, C. Modelación tridimensional no permanente del transporte de sedimento y socavación para un flujo alrededor de una columna cilíndrica. XIX Congreso Chileno de Ing. Hidráulica. Viña del Mar, Chile.
- 2009 Rodríguez, B. and Escauriaza, C. Modelación del flujo de socavación aguas abajo de una compuerta sumergida: Desarrollo de vórtices de Görtler. XIX Congreso Chileno de Ing. Hidráulica. Viña del Mar, Chile.
- 2008 Escauriaza, C., and Sotiropoulos, F. Three-dimensional Unsteady Modeling of Sediment Transport and Scour in the Turbulent Flow past a Cylindrical Pier. Riverflow 2008. International Conference on Fluvial Hydraulics, Cesme, Turkey.
- 2007 Escauriaza C., and Sotiropoulos F. Near-bed sediment transport by coherent structures in the turbulent flow past a surface-mounted cylinder. APS 60th Annual Meeting of the Division of Fluid Dynamics, Salt Lake City UT.
- 2007 Paik J., Escauriaza C., and Sotiropoulos F. On the coherent dynamics of turbulent wing-body junction flows. IUTAM Symposium on Unsteady Separated Flows and their Control, Corfu, Greece.

REPORTS

- 2006 Sturm, T. W., Sotiropoulos, F., Landers, M., Gotvald, T., Lee, S., Hong, S., and Escauriaza C. Laboratory and 3D Numerical Modeling with Field Monitoring of Regional Bridge Scour in Georgia. Phase 2. GDOT Research Project No. 0402, Georgia Department of Transportation, USA.
- 2004 Sturm, T. W., Sotiropoulos, F., Landers, M., Gotvald, T., Lee, S., Ge, L., Navarro, R., and Escauriaza C. Laboratory and 3D Numerical Modeling with Field Monitoring of Regional Bridge Scour in Georgia. GDOT Research Project No. 2002, Georgia Department of Transportation, USA.
- 2001 Modelo Hidráulico de la conexión del Canal San Carlos con el Río Mapocho. Dictuc S.A., Santiago, Chile.

HONORS

- 2008 Alvin G. Anderson Award. University of Minnesota.
- 2002-2004 Fulbright Grant.
- 2002-2005 Beca Presidente de la República. Chile.
- 2000 Hydraulic and Environmental Engineering Department Award.
Pontificia Universidad Católica de Chile.

ORGANIZATIONS

- Member of the Chilean Society of Hydraulic Engineering (SOCHID).
- Member of the American Geophysical Union (AGU).
- Member of the American Physical Society (APS).