

Environmental and Water Resources Engineering Seminar Series Presents:

Thursday, August 29th, 3:30-4:30pm, ECJ 1.308

Zoom Link: <https://utexas.zoom.us/j/98365720816>

From metal speciation to public policy: experiences from a mining country

Dr. Pablo Pasten, Associate Professor in the Department of Hydraulic and Environmental Engineering, The Pontifical Catholic University of Chile

Abstract

Andean countries, particularly Chile, supply a significant portion of the metals essential for the global energy transition, positioning Andean watersheds as key natural laboratories for studying the interactions between metal geochemistry, hydrology, and hydrodynamics. However, active and legacy mining activities have serious socio-environmental implications that challenge public policy and regulations aimed at protecting human and environmental health. In this talk, I will discuss our research on metal speciation and pollutant distribution within Andean watersheds affected by acid drainage and mining residues. Our findings offer critical insights that can inform decision-making processes and promote more effective community engagement.

Funding provided by ANID, projects Fondecyt 1200984 and Fondap 1523A0004



Background

Dr. Pasten is a member of the faculty at Pontificia Universidad Catolica de Chile (PUC). He received his undergraduate and MSc degrees in Civil Engineering from PUC, Chile, and his PhD from Northwestern University, in the USA. He aims to combine cutting-edge research in geochemistry, environmental engineering, and sustainability, with impact on the praxis and environmental policy-making toward societal challenges, in the context of transdisciplinary work.