

Queensland Tailings Group Master Class



Marcos Arroyo
Professor at UPC,
Barcelona, Spain

Dr. Marcos Arroyo is Professor of Geotechnical Engineering at the Polytechnic University of Catalonia (UPC), Barcelona. He holds a PhD from the University of Bristol and a civil engineering degree from Madrid and previously worked at Politecnico di Milano and University College London. His research focuses on advanced numerical methods (DEM, FEM, PFEM) for geotechnical site characterization. He has authored over 200 publications, serves on ISO and CEN committees contributing to Eurocode 7, and is Secretary of the ISSMGE Technical Committee on Site Characterization. He also led the forensic numerical analysis of the Brumadinho Dam failure and remains active as a consultant and expert witness.

Perth Wednesday, 11 Feb 2026
 Rio Tinto, Raine Square
Conference Room, Level 37/158 St
Georges Terrace, Perth WA 6000

Brisbane Tuesday, 17 Feb 2026
 The Westin Brisbane, 111 Mary St, Brisbane City QLD 4000

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In Person Only – \$400pp – [Perth Register Here](#) – [Brisbane Register Here](#)

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Full Geometry CPTu Modelling

Time	Session	Content
09:00 - 10:30	<i>Introduction : What is full geometry modelling? Why we need it?</i>	<ul style="list-style-type: none"> • Alternatives for full-geometry modelling • Critical state soil descriptions • The Clay And Sand Model (CASM)
10:30 - 11:00	<i>Morning Tea</i>	
11:00 - 12:30	<i>Full-geometry CPTu modelling: permeability and strength .</i>	<ul style="list-style-type: none"> • Cam-clay: permeability and CPTu • Cam-clay: permeability from CPTu • CASM: undrained brittleness and CPTu
12:30 - 13:00	<i>Lunch</i>	
13:00 - 14:30	<i>Full-geometry CPTu modelling: state parameter</i>	<ul style="list-style-type: none"> • State parameter in contractive undrained materials (CASM) • State parameter in contractive partly drained materials (CASM) • The limits of CASM: state parameter in dense sand
14:30 - 15:00	<i>Afternoon Tea</i>	
15:00 - 16:30	<i>Full-geometry CPTu modelling: a glimpse at the future</i>	<ul style="list-style-type: none"> • CPTu in partially saturated materials • Other tests: Marchetti DMT in clay • Pocket G-PFEM



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Presentation and Networking Event



The Independent Review of the Brumadhino Failure



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Perth Thursday, 12 Feb 2026
 5:30 – 8:00 PM
 Four Points, 707 Wellington Street, Perth, WA 6000

Brisbane Wednesday, 18 Feb 2026
 5:30 – 7:30 PM
 The Westin Brisbane, 111 Mary St, Brisbane City QLD 4000

» **Special Thanks to IGS and Rio Tinto, Major Sponsors of the Event** «

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