Bruna GARCIA

Geotechnical Engineer

Expertise	Geotechnical engineering, numerical modeling
Education	Ph.D. in Civil Engineering (Geomechanics), 2019 3SR Laboratory - Université Grenoble Alpes, Grenoble, France
	Civil Engineer, 2015 UNESP - São Paulo's State University, Guaratingueta, Brazil

Professional Experience

2024 –2025	INRAE - IGE Grenoble, Department ETNA: Postdoctoral researcher, Grenoble, France.
2022 – 2023	Université Gustave Eiffel - Laboratoire Risque Rocheux et Ouvrages géotechniques (RRO): Postdoctoral researcher, Bron, France.
2019 – 2020	GINGER CEBTP: R&D Engineer – Geotechnics, Civil Engineering.
2016 – 2019	IMSRN: R&D Engineer – Geotechnics, Civil Engineering.
2016 – 2017 (6 months)	Université de Grenoble, IUT 1 – GCCD Department, Substitute teacher, Grenoble, France.
2015 – 2016	IMSRN: Junior Geotechnical Engineer.
2014 (4 months)	IMSRN: Internship.

Project Experience

PhD Project: Analysis of the mechanical interaction between a rock mass and a slope: engineering applications. This thesis was funded by the company IMSRN (CIFRE -- ANRT no. 2016/0134) and carried out at 3SR Laboratory -- Soils, Solids, Structures, Risks under the direction of Pascal Villard, Vincent Richefeu and Dominique Daudon. Application of a 3D discrete elements code developed in 3SR on experimental tests at large (Benchmark Codes Trajectographiques - C2ROP), medium (SNCF) and small scales, using blocks with different geometries: studies concentrated on the influence of rock shape, shape classification, and on the dissipation parameters optimization based on trajectography simulations. Defended on November 19th, 2019 and available online at https://tinyurl.com/y6t6qju4 .

Application of research results to engineering offices, performing sensitivity studies of rockfall trajectography models (2D and 3D) and designing protective measures according to structural design standards (UNI and ONR).