



## Call for papers for Acta Geotechnica Special Issue on Bio-inspired Geotechnics

Researchers and investigators are invited to submit contributions to the special issue in Acta Geotechnica on the topic of Bio-inspired Geotechnics. This special issue will accept original research papers, short communications, and review papers. Anticipated contributions can be on experimental, numerical, and analytical investigations on fundamental aspects of organism-geomaterial interactions, translations of biological strategies to scales relevant to geotechnical and infrastructure systems, and applications of bio-inspired and nature-inspired solutions to geotechnical challenges.

A broad diversity of biological organisms, from mammals, to birds, insects, plants, and microbes interact with geomaterials in ways that facilitate their growth and survival. These interactions are made possible by strategies that enable the organisms to accomplish functions that can be analogous to those required in geotechnical engineering systems, such as anchorage in soft ground, penetration into hard substrates, transfer of load with geomaterials, and sensing of soil properties and conditions. Particularly, bio-inspired and nature-inspired solutions can be employed to guide the development of geotechnical technologies in a range of applications, such as site investigation, tunneling, onshore and offshore foundation and anchorage elements, scour protection, excavation and earthworks, ground improvement, mass and thermal transfer, sustainable materials, sensors and sensing systems, pollutant containment, transport, and treatment, soil reinforcement, retaining structures, and terramechanics. Contributions in these and other topics are encouraged.

### Deadline and submissions

The deadline for submissions to this special issue is **September 30<sup>th</sup>, 2022**. However, early submissions are encouraged, which will be reviewed as they are submitted. Preparation of the manuscript should follow the general [instructions for authors](#); submissions should be made in the Acta Geotechnica Editorial Manager, selecting “Bio-inspired Geotechnics” as the special issue option, and requesting one of the Guest Editors listed below. Interested contributors are encouraged to contact the guest editors before submitting a paper.

### Guest Editors

Alejandro Martinez, Ph.D.<sup>1</sup> and Julian Tao, Ph.D.<sup>2</sup>

<sup>1</sup>University of California Davis, [amart@ucdavis.edu](mailto:amart@ucdavis.edu)

<sup>2</sup>Arizona State University, [jtao25@asu.edu](mailto:jtao25@asu.edu)

