



Northwestern  
University

## Post-doc position at Northwestern

**Location:** The newly established *Mechanics and Energy Laboratory (MEL)* of Northwestern University, directed by Prof. Alessandro F. Rotta Loria, develops research activities addressing fundamental and applied problems centered on the mechanics of geomaterials and structural systems in the context of energy production and storage.

**Position scope:** MEL is seeking a post-doctoral researcher to develop research activities resorting to innovative numerical modelling approaches, potentially coupled with experimental analyses, to push the boundaries of the current understanding of the multiphysical behavior and resilience of geomaterials (e.g., soils), from the particle to the continuum scales.

**Candidate profile:** To be considered for this position, a Ph.D. or equivalent degree in mechanics, materials science, chemistry, civil engineering, physics, environmental engineering or other related fields is required. Applicants nearing completion of their Ph.D. are also encouraged to apply. The candidate is expected to plan and execute multiscale numerical modelling activities within the scope of this position. For this reason, a strong expertise in numerical modelling of materials through the Discrete and Finite Element Methods, the Material Point Method or Molecular Dynamics Simulations is required. Independent research skills, teamworking attitude when this approach is required, and excellent communication skills and commitment are desired for this position. Co-supervision of Ph.D. students and teaching assistance are expected.

**Employment conditions:** This full-time position is for a minimum duration of 1 year, starting from April 2019 or as soon as possible thereafter, with the possibility of a contract extension after this period. Excellent research facilities and a competitive salary are offered for this position. Northwestern University offers an outstanding international environment full of training and development opportunities.

**Contact:** Please contact Prof. Alessandro F. Rotta Loria ([alessandro.rottaloria@gmail.com](mailto:alessandro.rottaloria@gmail.com)) for more information about this position and the MEL. Candidates are encouraged to apply by sending as a *single PDF*: (i) a 1-page cover letter, (ii) a curriculum vitae with their publications list, (iii) contact information of two references and (iv) two representative publications.