

MS- Geometry and Continuum Mechanics

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The foundations of Geometric Mechanics are rooted in Lagrange's work, which brought the abstract notion of configuration space. Subsequently, the developments of Differential Geometry in the 20th century gave a powerful and rigorous framework for the formulation of Continuum Mechanics. This generated a renewed interest in several topics in Continuum Mechanics.

This symposium welcomes contributions in the fundamentals of Continuum Mechanics including geometric aspects as well as in more classical aspects of Continuum Mechanics, with the aim of stimulating discussion and exchange of ideas.

Topics include, but are not limited to:

- Theory of invariants in constitutive laws (elasticity, viscoelasticity, etc)
- Non-linear Elasticity
- Anelastic processes (plasticity, viscoelasticity, growth-remodelling, etc)
- Electro-magneto-dynamics of continua
- Geometric integrators
- Discrete exterior calculus