

Matériaux Techniques

Call for papers

Themed Issue on 'Indentation across scales and techniques: recent advances in experiments and modelling'

Guest Editor:

Prof. Vincent Keryvin, Université de Bretagne Sud, Lorient France



Background

Instrumented Indentation Testing (IIT) is a flexible mechanical procedure due to its extreme simplicity. Coupled with advances in numerical simulation and additional experiments, IIT is nowadays a popular research tool in science and engineering across scales and disciplines.

The symposium "Indentation 2021" from the French Groupe Indentation Multi-Echelle (GIME, SF2M) is addressed to academics and industrials concerned with mechanical characterisation issues with instrumented indentation at different scales. In general, this conference aims to better understand the indentation, but also to share this great tool for characterizing between the scientific and industrial communities.



Aim and Scope of the Themed Issue

The purpose of the themed issue: "Indentation across scales and techniques: recent advances in experiments and modelling" is to provide the possibility for research outputs about indentation to be published at the intersection of experiments and simulation.



The issue will specifically target the recent developments in indentation in terms of experiments and simulation results, the extent of the derived properties and indentation applications (fracture, mechanics, constitutive behaviour, plasticity, fatigue, creep ...). This will be done by sweeping examples of studies on heterogeneous materials, porous ceramics, coated materials or materials with gradient properties.

The issue will publish work covering all research areas, from fundamentals aspects of indentation to industrial applications, including, but not limited to:

- 1. Metallic materials and phenomenological approach
- 2. Thin films and coatings

- 3. Severe environments: temperature, humidity, dynamic loading...
- 4. Brittle materials and fracture : ceramics, glasses, concretes...
- 5. Metallic materials and crystal plasticity
- 6. Soft materials : polymers, rubbers...
- 7. Coupling of experimental techniques : AFM, XRD, Raman, SEM, TEM...
- 8. Bio-based materials and bio-materials: skin, teeth, natural fibres...



Submissions

All relevant papers will be carefully considered, vetted by a distinguished team of international experts, and published in accordance to the Journal's standard policies. Full research papers and review articles can be submitted online via the journal's submission and peer review site. Please register choosing the title of the special issue 'Indentation across scales and techniques: recent advances in experiments and modelling'.

Please find the instructions for authors at: <u>https://www.mattech-journal.org/author-information/instructions-for-authors</u>

Submission deadline – October 12th 2021

Article submission and editorial system here.

Charges

- 1. There is no submission charge in Matériaux & Techniques.
- 2. For papers that have <u>not</u> chosen the Open Access Option (those papers will be read only by subscribers), there are **no publication charges.**
- 3. Open Access Option

To favour a broad and easy access to all published scientific information, EPJ AP uses a service called <u>Open Access Option (OAO)</u>. It offers the possibility for authors to make their papers freely available to all interested readers (subscribers or non-subscribers) as soon as the articles are published online, in exchange for payment of a <u>basic fee</u>.

- > Discounts concerning the Open Access Option:
 - EDP Sciences has signed with the Technische Informationsbibliothek (TIB) a German National APC agreement. Corresponding authors affiliated with German academic institutions including universities and research institutions, can publish in open access at a 20 percent discounted APC price.
 - Corresponding authors from <u>French institutions</u> having signed <u>the National Open</u> <u>Access agreement in France</u>, can publish in Open Access without any fee.



Abstracted/Indexed in:

- <u>Astrophysics Data System (ADS)</u>
- <u>Chemical Abstracts Service (CAS)</u>
- <u>Compendex[®]</u>
- <u>Crossref</u>
- <u>CNKI</u>

- <u>ESCI Emerging Sources Citation</u> Index (Web of Science)
- Google Scholar
- <u>Scopus</u>
- Wanfang Data