

## Multiscale Calculation of Structural Concrete

Guest Editors:

**Dr. Fuyuan Gong**

College of Civil Engineering and  
Architecture, Zhejiang University,  
Hangzhou 310027, China

**Dr. Pengfei Li**

School of River and Ocean  
Engineering, Chongqing Jiaotong  
University, Chongqing, China

**Dr. Zhao Wang**

Institute of Urban Innovation,  
Yokohama National University,  
Yokohama, Japan

Deadline for manuscript  
submissions:

**closed (30 May 2023)**

### Message from the Guest Editors

This Special Issue aims to stimulate an exchange of ideas and knowledge on multiscale calculations for concrete materials and structures. Original contributions describing new research, case studies, and applications or state-of-the-art discussion on the following and related topics are welcome:

- Multiscale characterization of cement-based composites;
- Multiscale design, fabrication, and synthesis for structural concrete;
- Multiscale micromechanics and poromechanics;
- Multiscale modeling of concrete durability;
- Multiscale numerical simulations of material and structure;
- Multiscale of combined physics/chemistry/mechanics in concrete.

For scholars interested to submit papers to the Special Issue, please click “Submit to Special Issue” or contact Astoria Yao: [astoria.yao@mdpi.com](mailto:astoria.yao@mdpi.com).



## Editor-in-Chief

**Prof. Dr. David Arditi**

Construction Engineering and  
Management Program,  
Department of Civil,  
Architectural, and Environmental  
Engineering, Illinois Institute of  
Technology, 3201 South  
Dearborn Street, Chicago, IL  
60616, USA

## Message from the Editor-in-Chief

Current urban environments are home to multi-modal transit systems, extensive energy grids, a building stock, and integrated services. Sprawling neighborhoods are composed of buildings that accommodate living and working quarters. However, it is expected that the cities and communities of the future will face complex and enormous challenges, including maintenance, interconnectivity, resilience, energy efficiency, and sustainability issues, to name but a few. A smart city uses advanced technologies and a digital infrastructure to improve the outcomes in every aspect of a city's operations. A smart building optimizes the experience of occupants, staff, and management by using a modern and connected environment. Innovations in technology that can bring dramatic improvements to design, planning, and policy are critical in developing the cities and buildings of the future.

## Author Benefits

**Open Access:** free for readers, with article processing charges (APC) paid by authors or their institutions.

**High Visibility:** indexed within Scopus, SCIE (Web of Science), Inspec, and other databases.

**Journal Rank:** JCR - Q2 (*Engineering, Civil*) / CiteScore - Q1 (*Architecture*)

## Contact Us

---

*Buildings* Editorial Office  
MDPI, St. Alban-Anlage 66  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/buildings](http://mdpi.com/journal/buildings)  
[buildings@mdpi.com](mailto:buildings@mdpi.com)  
[X@Buildings\\_MDPI](https://twitter.com/Buildings_MDPI)