

## Special Issue

# Laser Acceleration Technology and Applications

### Message from the Guest Editor

Laser-driven particle accelerators have experienced tremendous development over the last few years, with clear potential to soon become a compact alternative to more conventional radio-frequency based accelerators. The ability to sustain extremely high accelerating fields (easily exceeding the GV/m) allows for the acceleration of electrons up to GeV-like energies over only a few cm of plasma. Moreover, laser-driven accelerators have the unique capability of generating femtosecond-scale electron beams with source sizes in the micron range and divergences of the order of a mrad. These appealing characteristics are unveiling a whole new range of applications in healthcare, manufacturing, and fundamental science that would not be possible otherwise.

- wakefield
- high-intensity lasers
- electron beams
- plasma physics
- optics
- particle acceleration

---

### Guest Editor

Dr. Gianluca Sarri

Room 01.045, Physics Block 3, Main Site, Queen's University Belfast, Belfast, UK

---

### Deadline for manuscript submissions

closed (30 September 2019)



## Applied Sciences

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.5  
CiteScore 5.3



[mdpi.com/si/21697](https://mdpi.com/si/21697)

*Applied Sciences*  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[appls@mdpi.com](mailto:appls@mdpi.com)

[mdpi.com/journal/  
appls](https://mdpi.com/journal/appls)





# Applied Sciences

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.5  
CiteScore 5.3



[mdpi.com/journal/  
applsci](https://mdpi.com/journal/applsci)



## About the Journal

### Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

---

### Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo  
Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32,  
20133 Milano, Italy

---

### 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, CAPIus / SciFinder, and other databases.

#### Journal Rank:

JCR - Q1 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering)