



# INTERNATIONAL MICROWAVE POWER INSTITUTE

IMPI's 57<sup>th</sup> Annual Microwave Power Symposium  
27-29 June 2023, Denver, CO, USA

## Special Session – Accelerator Applications of Microwave and RF Power

### Call for Papers: Abstract Deadline 20 January 2023

The International Microwave Power Institute (IMPI) is the foremost forum for interchanging scientific and technological information on all non-communications applications of radio frequency (RF) and microwave power, i.e. using electromagnetic fields with frequencies from the kHz to the THz range. IMPI brings together scientists, engineers, technologists, managers and entrepreneurs concerned with the generation and application of RF and microwave power, and with its use in various fields including processing food and agricultural products, medical treatment and facilitating chemical and materials processes.

IMPI's upcoming 57<sup>th</sup> symposium will include a special session on accelerator applications of microwave and RF power. We call for papers on all aspects of these topics, including those concerning generation, impedance matching, applicator/resonator design, and the effect of the resultant electromagnetic field on plasmas and charged particle beams. Topics include, but are not limited to:

- Generation of high-power RF/microwaves for accelerator applications including ion sources and excitation of accelerating structures
- The session will likely include introductory talks on RF and microwave-driven ion sources for particle accelerators as well as introductory discussions of RF and microwave-driven accelerators like RFQs, LINACs, cyclotrons and synchrotrons
- Impedance matching and resonator design for accelerator applications
- Electromagnetic field interaction with particle beams and plasmas
- RF/microwave applications in controlled nuclear fusion
- Generation of RF/microwave power using plasma or electron beams
- Also see the companion Special Session on RF/microwave interactions with plasmas

## Important Information:

- Abstract deadline: 20 Jan 2023
- Abstract length: 1-3 pages
- Download and use the abstract template at [IMPI-57-Word-Template.docx \(live.com\)](#)
- Use word \*.doc or \*.docx format
- Submit your abstracts to [info@impi.org](mailto:info@impi.org)
- Fill out and send with your abstract the form at the end of this document
- Questions about the special accelerator session?  
Contact Robert Welton ([welton@ornl.gov](mailto:welton@ornl.gov))
- Full information about IMPI 57: [2023 Call for Papers IMPI57 Final.pdf](#)
- Other questions about IMPI 57? Interested in sponsoring or exhibiting at IMPI 57?  
contact IMPI's Executive Director: [molly.poisant@impi.org](mailto:molly.poisant@impi.org) or +1 804 559 6667.

# Special Session: Plasma and Accelerator Applications of Microwave and RF Power

## Abstract Submission Form

### CONTACT INFORMATION

Presenting Author's Name: \_\_\_\_\_

Organization: \_\_\_\_\_

Address: \_\_\_\_\_

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Phone: \_\_\_\_\_ E-mail: \_\_\_\_\_

Paper Title:

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Author(s):

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Affiliation(s):

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Will the paper be presented by a student participating in the student competition? Yes  No

If your initial submission is a short version of your abstract, do you plan to submit an extended abstract (up to 3 pages) for publication in the Proceedings? Yes  No