



IMPI'S 59TH ANNUAL MICROWAVE POWER SYMPOSIUM

The Premier Industry-Wide Microwave Power Event

2025 CALL FOR PAPERS

Submission Deadline: *January 17, 2025*

The International Microwave Power Institute invites scientists, engineers, industry professionals and users to submit papers in all areas of research, development, manufacture, engineering, specification and use of microwave and radio frequency energy systems for non-communication applications, including industrial microwave and RF, solid state, food technology, plasma, chemical, material processing, and new emerging technologies.

June 24-26, 2025

Westin Edmonton Hotel
Edmonton, Alberta, Canada



Presented by the

INTERNATIONAL MICROWAVE POWER INSTITUTE

PO Box 1140, Mechanicsville, VA 23111

E-mail: info@impi.org

WWW.IMPI.ORG

Categories & Topics

IMPI 59 will bring together researchers, technologists, engineers and industry professionals from across the globe to share the latest research and developments in microwave and radio frequency power applications, including food technology, industrial applications, solid state, chemical, plasma, materials processing and emerging technologies. Topics include, but are not limited to:

FUNDAMENTALS AND MODELING

- Dielectric and Other Material Properties
- Dielectric Sensing and Imaging Techniques
- Modeling, CAD and Optimization

INDUSTRIAL APPLICATIONS

- Biomedical & Medical Applications
- Microwave and Plasma Chemistry
- Chemical Engineering and Catalysis
- Hydrogen Technologies
- Biomass and Waste Processing
- Metallurgy and Mineral Processing
- Material Science and Engineering
- Biological and Environmental Applications
- Microwave Plasma Applications
- Manufacturing
- Mining
- RF Composite

ELECTRIFICATION AND SUSTAINABLE ENERGY

- Food Processing
- Industrial Processing
- Waste Recycling
- Government Supported Research
- Clean Energy Production and Transfer (e.g. solar power satellites, energy production and distribution on the Moon and Mars)

FOOD SCIENCE & TECHNOLOGY

- Biological Applications
- Industrial RF & Microwave
- Processing of Food
- Microbiological Testing
- Microwavable Packaging
- Microwave Ovens: Design, Standards and Safety
- Product Validation
- Food & Agriculture
- Nutritions
- Trends in Microwave Cooking
- Food Safety Using Microwave Technology

RESEARCH AND EMERGING TECHNOLOGIES

- High Energy Research (e.g. accelerators)
- Wireless Power Transfer
- Directed Energy (e.g. weapons)
- Deep Space Applications (e.g. thrusters)
- Aerospace Applications
- Lab Grown Diamonds
- Terahertz Applications

INDUSTRIAL PROCESS EQUIPMENT

- Industrial High Power Equipment and Process Control
- Solid State Microwave Technology
- Microwave Process Scale Up

KEYNOTE SPEAKERS



Does it make sense to use microwaves and RF when creating ceramic-based materials for high temperature applications?

Professor Jon Binner CEng, FIMMM, FECerS, FACerS, Fampere

Deputy Head of the Engineering & Physical Sciences College

Professor of Ceramic Science & Engineering

School of Metallurgy and Materials

University of Birmingham, United Kingdom



Essential aspects of commercialization of microwave heating technology for foods and beverages

Tatiana Koutchma, PhD

Research Scientist

Guelph Food Research and Development Center

Agriculture and Agri-Food Canada/Government of Canada

Ontario, Canada

WHO SHOULD ATTEND

The Symposium is an interactive and educational forum that brings together IMPI's diverse and interdisciplinary membership including:

- Microwave product developers and system manufacturers
- Industry professionals involved with microwave processing
- Academic researchers and scientists in any noncommunication microwave technology field
- Students in all fields associated with microwave energy

SYMPOSIUM STRUCTURE

IMPI 59 will offer two (2) half-day short courses on Tuesday, June 24th with the official program kicking off with an Exhibitor Showcase (late afternoon) and Welcome Reception (early evening). Plenary talks, special focus sessions, panel discussions, technical sessions with podium presentations and interactive poster sessions will take place Wednesday, June 25th and Thursday, June 26th. Social events and coffee breaks, as well as poster and exhibitor sessions (open throughout the Symposium) will provide attendees with many networking opportunities over the course of the three-day event. The IMPI 59 Symposium is being organized as a fully in-person event.

SUMMARY SUBMISSION

The summary must be of sufficient length to allow the Technical Program Committee (TPC) to evaluate the paper; lack of information in the summary may lead to its rejection. Summaries should be a minimum of one page and a maximum of three pages. All submissions must be in *.doc or *.docx format and sent via e-mail to info@impi.org along with the completed submission form on the last page of this document; the template of the summary can be found at <http://impi.org/events/symposium>.

E-mail notifications on acceptance/rejection and presentation mode (i.e., podium/poster) will be sent to the authors by February 21, 2025. The TPC may conditionally accept a summary subject to specific revisions/extension, or suggest improvements – in these cases the final summary must be submitted no later than March 21, 2025. Authors must note on their initial submission if they intend to submit an extended version to be considered for the Proceedings.

TECHNICAL REVIEW AND SELECTION CRITERIA

All summaries must be in good, coherent English to allow the TPC to evaluate the technical merits of the submission. Presentations will be accepted for the Symposium Program on the basis of the following four criteria: novelty, completeness of technical description, clarity of presentation, and relevance to the Symposium topics. The TPC will organize the accepted presentations into podium and poster sessions according to topics, Symposium constraints and the main interests of the attendees.

THE PROCEEDINGS

For inclusion in the Symposium Proceedings, the minimum length is one page and the maximum length of the extended summaries is three pages. Inclusion in the Proceedings is subject to at least one of the authors' registration and proof of the author's intent to attend the Symposium. The Proceedings will be published electronically and will be provided free to registered attendees

SUBSEQUENT JOURNAL PUBLICATION

Authors of accepted abstracts are encouraged to submit journal versions of their papers to the Journal of Microwave Power and Electromagnetic Energy. The submitted manuscript will undergo full review in accordance with JMPEE's standards. If published, JMPEE will designate those papers as having been presented at IMPI 59. Full JMPEE submission instructions may be found [here](#).



IMPORTANT DATES

January 17, 2025: Submissions Due

February 21, 2025: Acceptance Notices

March 21, 2025: Final Papers Due

June 24-26, 2025: Symposium

STUDENT PARTICIPATION

IMPI 59 strongly encourages student participation. Students' papers will be evaluated for inclusion in the Symposium Program using the same standards and criteria as all contributed submissions.

The students are invited to participate in the Student Paper Competition. When submitting their summaries, the student should check the box on the submission form to indicate that they are interested to be a part of the competition. The best podium talk and the best poster will be chosen for two awards on the basis of quality of content and presentation. For a paper to be eligible, the key author must have been a full-time student during the time the work was done and must present the paper at the Symposium. Also, winners of the IMPI awards of earlier Symposia are not eligible for participation in the competition.

Students may apply for a Student Travel Scholarship (\$500) which may be used towards registration, travel or accommodations. The number of scholarships varies from year to year; additional details will be added to the IMPI website in the coming weeks.

If you have any questions or are interested in sponsoring or exhibiting at IMPI 59, contact IMPI's Executive Director: molly.poisant@impi.org.

Technical Program Committee

Chairs

Ralph W. Bruce, RW Bruce Associates, LLC, formerly Vanderbilt University, USA, Chair
Jiajia Chen, University of Tennessee -Knoxville, USA, Vice-Chair

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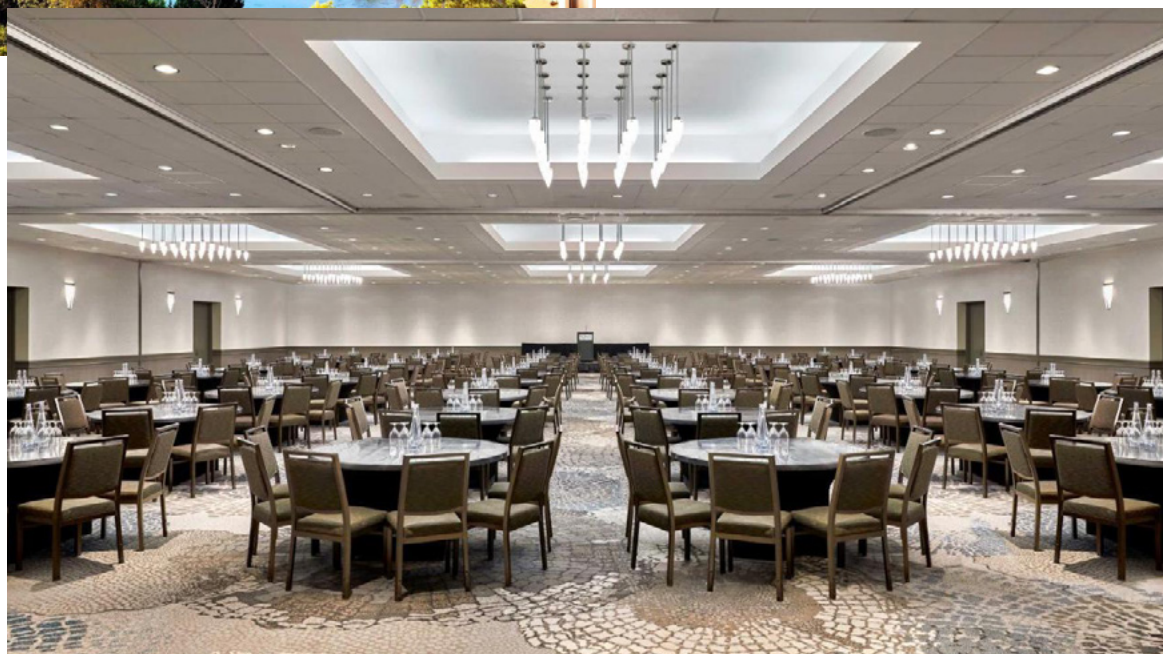
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Robert Welton, Oak Ridge National Laboratory, USA
Klaus Werner, pinkRF B.V., Netherlands
Vadim Yakovlev, Worcester Polytechnic Institute, USA

Host City & Venue

IMPI 59 will be held at the Westin Edmonton in picturesque Edmonton, Alberta, Canada.

The Westin Edmonton is located in the heart of the city's vibrant downtown district. Edmonton's river valley and park systems boast over 160 kilometers of trails scattered throughout the city. There is something for everyone in this northern city with a booming culinary, sport, festival and shopping scene. The Edmonton International Airport is located less than 20 miles from the Westin Hotel. The last time an IMPI Symposia took place in Edmonton was 1969 (4th IMPI Symposium) and 1966 (1st IMPI Symposium). To learn more about Edmonton, view [this welcome video](#), prepared by Explore Edmonton, for IMPI 59 attendees!

IMPI is pleased to offer sleeping rooms at the Westin Edmonton for the special group rate of \$209CAD (~\$153USD) per night, plus applicable taxes. [Use this link to secure your room today!](#)





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CALL FOR PAPERS 2025

Authors must complete and submit this Contact Information Form along with their Paper.

CONTACT INFORMATION

Presenting Author Name: _____

Organization: _____

Address: _____

Phone: _____ E-mail: _____

Paper Title: _____

Author(s): _____

Affiliations: _____

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

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

[Click here to download the IMPI 59 Word Template for Paper Submissions](#)

[Click here to download Contact Information Form PDF](#)