June 14-16, 2022
The DeSoto Hotel
Savannah, Georgia, USA

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Presented by the
International Microwave Power Institute
PO Box 1140, Mechanicsville, VA 23111  |  Email: info@impi.org

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THE SYMPOSIUM

Join us and be part of the IMPI 56 experience: where knowledge is shared, networking is prolific, and the program offers topics for everyone interested in learning about the latest developments in microwave power science and technology. It’s been three years since IMPI has brought together researchers, technologists and engineers from across the globe. We are delighted to welcome you back to our first in-person Symposium since 2019 to share the latest findings on microwave and radio frequency power systems for non-communication applications, including, plasma, chemical and material processing, solid-state, food processing, biological applications and more!

HOST CITY, VENUE AND ACCOMMODATIONS

Savannah, Georgia is a coastal city best know for its southern hospitality, lively riverfront, and oak-lined streets. A top cultural destination in the Southeast, Savannah offers historical tours, unique museums, and many live music and theatre venues. The city center is only 9 miles from Savannah/Hilton Head International Airport. For those looking to couple their business trip with a vacation, Savannah is only 20 minutes from Tybee Island, GA and 45 minute drive from Hilton Head Island, SC.

Overlooking Madison Square in the heart of Savannah’s Historic District, The DeSoto is a treasured landmark blending the elegance, history, and charm of one of America’s oldest cities with a generous dash of modern Southern hospitality. The hotel’s prime location in the residential historic district is just a short walk from the riverfronts touristy bustle. The DeSoto boasts 246 newly renovated guest rooms, a lovely pool, and on-site restaurants.

IMPI attendees may book their room directly by clicking here to receive the $159 per night special room rate. Hotel reservations are also available by phone at 1-800-239-5118, Group Code: IMPI. Guest rooms at the special rate are selling out quickly – book your room today!

SPECIAL EVENTS

There are several optional special events that registrants can add on during the registration process:

- Workshop on Computer Modeling
- Solid State RF Energy Section Lunch & Presentation
- Group Dinner at a Local Restaurant
- Spouse/Guest Program
IMPI’s 56th Annual Microwave Power Symposium (IMPI 56)

SCHEDULE OF EVENTS

***Times/days of presentations are subject to change***

TUESDAY, JUNE 14, 2022

8:00am - 3:30pm  WORKSHOP ON COMPUTER MODELING (Optional: additional fee applies)

12:00pm - 1:30pm  LUNCH ON OWN
SOLID-STATE RF ENERGY SECTION LUNCH (Optional: additional fee applies)

3:30pm - 5:00pm  EXHIBITOR SHOWCASE
Fifteen-minute presentations/demonstrations at exhibition booths.

- Muegge GmbH (Germany)
- Microwave Techniques (USA)
- Leanfa (Italy)
- Odyssey Technical Solutions (USA)
- MKS (Italy)
- Solid State RF Energy Section
- QWED (Poland)
- Sairem (France)
- Symphony Microwave (USA)
- CrescendRF (USA)
- Ampleon (Netherlands)
- PinkRF (Netherlands)
- WavePia (Republic of Korea)
- Richardson Electronics (USA)
- 3DRFE Corporation (USA)
- RFHIC (Republic of Korea)

5:00pm - 7:00pm  WELCOME RECEPTION (Posters and Exhibits Open)
Hor d’oeuvres and cocktails in the Exhibit Hall

WEDNESDAY, JUNE 15, 2022

8:00am - 8:15am  WELCOME & INTRODUCTIONS
Vadim Yakovlev, Worcester Polytechnic Institute, Technical Program Committee Chair
Candice Ellison, NETL/Leidos, Technical Program Committee Vice-Chair
John F. Gerling, Gerling Consulting, Inc. & Interim President, IMPI

PLENARY SESSION

8:15am - 9:00am  KEYNOTE ADDRESS: OVERVIEW OF RADIO FREQUENCY AND MICROWAVE DRIVEN PLASMA ION SOURCES FOR PARTICLE ACCELERATORS
Robert F. Welton¹, Olli Tarvainen², and Baoxi Han¹
¹Spallation Neutron Source, Oak Ridge National Laboratory, Oak Ridge, TN, USA
²UKRI-STFC-ISIS Pulsed Spallation Neutron and Muon Facility, Rutherford Appleton Laboratory, Harwell, UK

9:00am - 9:30am  INVITED: SOLID-STATE MICROWAVE POWER COMBINING TECHNIQUES
Zoya Popovic
University of Colorado, Boulder, CO, USA
WEDNESDAY, JUNE 15, 2022 CONTINUED

9:30am - 9:40am  
POSTER FLASH SESSION

9:40am - 9:45am  
BREAK TO MOVE BETWEEN CONCURRENT SESSIONS

9:45am - 10:55am  
CONCURRENT SESSIONS

SESSION A: MICROWAVE PLASMA I

INVITED: Atmospheric Pressure Plasma Source and Downstream Source: Characteristics and Industrial Applications
Robert Mueller¹, Klaus-Martin Baumgaertner¹, Markus Dingeldein¹, Moritz Gorath¹, Jens Hofmann¹, Andreas Schulz², and Matthias Walker²  
¹Muegge GmbH, Reichelsheim (Odenwald), Germany  
²University of Stuttgart, Stuttgart, Germany

Tuning Method for Improved Microwave Power Coupling into Frequency Tuned Plasma and Enhanced Reliability of High-Power Coaxial Transmission Line
Mohammad Kamarehi, Ilya Pokidov, Ken Trenholm, and Joe Desjardins  
MKS Instruments / P&RGS, Wilmington, USA

Radiofrequency Plasma Heating for Electrodeless Space Thruster Applications
Mario Merino, Jaume Navarro, Célian Boyé, Pedro Jiménez, Marco Inchingolo, Jiewei Zhou, and Eduardo Ahedo  
Universidad Carlos III de Madrid, Leganés, Spain

SESSION B: COMPUTER MODELING I

INVITED: Multiphysics Simulation of Flash Microwave Heating and Sintering
Charles Maniere¹, Geuntak Lee²,³, Shirley Chan², Elisa Torresani², Vadim V. Yakovlev⁴, John F. Gerling², Eugene A. Olevsky²,³, Guillaume Riquet¹, and Sylvain Marinel¹  
¹Normandie Université, Caen, France  
²San Diego State University, San Diego, CA, USA  
³University of California, San Diego, La Jolla, CA, USA  
⁴Worcester Polytechnic Institute, Worcester, MA, USA  
⁵Gerling Consulting, Inc., Gilroy, CA, USA

Experimental and Computational Studies of Microwave Heating in Single-Stream Waste Processing
Megan C. Robinson¹, Vadim V. Yakovlev², and Zoya Popovic¹  
¹University of Colorado, Boulder, CO, USA  
²Worcester Polytechnic Institute, Worcester, MA, USA

Field Studies in Microwave Cavities: Magnetron vs. Solid-State RF Generator
Xu Zhou, Zhongwei Tang, and Juming Tang  
Washington State University, Pullman, WA, USA
IMPI’s 56th Annual Microwave Power Symposium (IMPI 56)

Schedule of Events

10:55am - 11:10am COFFEE BREAK

11:10am - 12:20pm CONCURRENT SESSIONS

SESSION A: MICROWAVE PROCESSING OF MATERIALS

INVITED: Microwave-Assisted Additive Manufacturing of Continuous Fiber Reinforced Thermoplastic Composites: Challenges and Opportunities
Nanya Li, Guido Link, and John Jelonnek
Karlsruhe Institute of Technology, Eggenstein-Leopoldshafen, Germany

SiCf/SiC Ceramic Matrix Composites Using Microwave Enhanced Chemical Vapour Infiltration
Matthew T. Porter¹, Andrea D’Angio, Jon Binner¹, Vadim V. Yakovlev², and Michael K. Cinibulk³
¹University of Birmingham, Birmingham, UK
²Worcester Polytechnic Institute, Worcester, MA, USA
³Air Force Research Laboratory, Wright-Patterson Air Force Base, OH, USA

NETL’s Microwave-Material Interaction Studies
Christina Wildfire¹, Dushyant Shekhawat¹, Candice Ellison², Pranjali Muley², and Biswanath Dutta²
¹NETL, DOE, Morgantown, WV, USA
²Leidos, NETL, Morgantown, WV, USA

SESSION B: COMPUTER MODELING II

INVITED: FDTD Modeling of Microwave Power Applicators
Bartłomiej W. Salski¹ and Marzena Olszewska-Placha²
¹Warsaw University of Technology, Warsaw, Poland
²QWED Sp. z o.o., Warsaw, Poland

On the Multiphysics Modelling of Chemical Processes with Solid-State Driven Microwave Systems
Pablo Santón¹, Elias De los Reyes¹, Ruth De los Reyes², J. Vicente Balbastre¹, and José Vicente Ros³
¹Polytechnic University of Valencia, Valencia, Spain
²Microbiotech S.L., Vilamarxant, Spain
³University of Valencia, Valencia, Spain

AI-Based Prediction of Microwave Effects on Ore Preconditioning and Breakage
Khashayar Teimoori¹,², Brent Hilscher¹, Candice Ellison³,⁴, and Dushyant Shekhawat³
¹ABH Engineering Inc., Surrey, BC, Canada
²McGill University, Montreal, QC, Canada
³National Energy Technology Lab, Morgantown, WV, USA
⁴NETL Research Support Contractor, Morgantown, WV, USA

12:10pm - 1:05pm NETWORKING LUNCHEON (Posters & Exhibits Open)
WEDNESDAY, JUNE 15, 2022 CONTINUED

1:05pm- 2:05pm

POSTER & EXHIBITOR SESSION

2:05pm - 2:20pm

SPECIAL PRESENTATION: AMPERE 2023
Daniel R. Slocombe, Cardiff University, UK

2:20pm - 3:00pm

CONCURRENT SESSIONS

SESSION A: DIELECTRIC CHARACTERIZATION & MICROWAVE EQUIPMENT

Use of Dielectric Properties Measurements for Monitoring Water Activity Changes in Almonds
Samir Trabelsi
U.S. National Poultry Research Center, USDA-ARS, Athens, GA, USA

The Effects of Different Microwave Powers and Frequencies on the Reduction of Magnetite to Iron
Morgan Chen¹, Shuyan Zhang¹, Victor Abdelsayed², Daniel Haynes², and B. Reeja Jayan¹
¹Carnegie Mellon University, Pittsburgh, PA, USA
²National Energy Technology Lab, Morgantown, WV, USA

SESSION B: MICROWAVE PLASMA II

Mass Separation by the Ponderomotive Force Exerted by Standing Alfven Waves
Amnon Fruchtman and Gennady Makrinich
Holon Institute of Technology, Holon, Israel

Fungal Disinfection Using a Piezo-Electric Plasma Source
Amnon Lam, Aviad Harhol, and Chen Porat
Nova Plasma LTD, Megiddo, Israel

3:00pm - 3:15pm

COFFEE BREAK

3:15pm - 4:15pm

CONCURRENT SESSIONS

SESSION A: SOLID-STATE TECHNOLOGIES

Modular and Scalable Solid-State Architectures for Frequency-Dependent Microwave Processes
Marco Fiore, Nicola Di Modugno, Tommaso De Nicolo, and Cristian Bruno
LEANFA Srl, Ruvo di Puglia, Italy

Solid-State Technologies LDMOS and GaN Compared
Patrick Valk and Coen Centen
Ampleon, Nijmegen, Netherlands

MML, Solid-State Oven Interoperability and The Meta Verse
Steven Drucker
Droaster Laboratories LLC, Greer, SC, USA
SESSION B: MICROWAVE CHEMISTRY & PLASMA

A Miniature Electron Cyclotron Resonance Ion Source for Neutron Generators
David L. Williams, Allan X. Chen, Craig Brown, Adam Amoroso, Veronica Smith, Mashal Elsalim, and Charles K. Gary
Adelphi Technology, Inc., Redwood City, California, USA

The Influence of Post-Plasma Species from Microwave Enhanced CH4/N2/Ar Plasma on the Selectivity of Ethylene and Ammonia
Sarojini Tiwari, Brandon Robinson, Sean Brown, Jianli Hu, and Sonit Balyan
West Virginia University, Morgantown, WV, USA

Microwave Plasma Conversion of Natural Gas for Hydrogen and Carbon Production
Alvaro Martin Ortega1, Gérard Gatt2, Arnaud Boutibonnes2, Ariel Mello3, Marilena Radoiu3
1Sakowin SAS, Fréjus, France
2Polytech de Marseille, Marseille, France
3Microwave Technologies Consulting SAS, Lyon, France

4:15pm- 5:00pm  PANEL: SOLID-STATE RF ENERGY

5:00pm - 5:40pm  IMPI BUSINESS MEETING (Open to all current and potential IMPI members)
Unveiling of the Bob Schiffmann Leadership Award & Scholarship

6:45pm-9:00pm  GROUP DINNER AT LOCAL RESTAURANT (Optional: additional fee applies)

THURSDAY, JUNE 16, 2022

8:00am-8:05am  ANNOUNCEMENTS

8:05am - 8:50am  KEYNOTE ADDRESS
Path Toward Multi-Megawatt Microwave Reactors for the Production of Low Carbon Hydrogen
Jan H.D. Boshoff and James M. Tranquilla
Nu:ionic Technologies (Canada) Inc., Fredericton, NB, Canada

8:50am - 9:20am  INVITED: Operational Experience with 1 MHz, 200 kW Free Running Oscillators for the ITER NBI RF Plasma Source
Alberto Maistrello
Consorzio RFX, Università di Padova, Acciaierie Venete SpA, Padova, Italy

9:20am - 9:25am  BREAK TO MOVE BETWEEN CONCURRENT SESSIONS

9:25am - 10:55am  CONCURRENT SESSIONS
SESSION A: MICROWAVE CHEMISTRY I

INVITED: Selective Microwave Heating of Organic Reaction Mixtures
Gregory B. Dudley
West Virginia University, Morgantown, WV, USA

Effect of Microwave-Assisted Gasification on the Chemical and Physical Properties of Coal Chars
Candice Ellison1,2, Victor Abdelsayed1,2, Mark Smith1, and Dushyant Shekhawat1
1National Energy Technology Laboratory, Morgantown, WV, USA
2NETL Research Support Contractor, Morgantown, WV, USA

Microwave-Assisted Ammonia Synthesis Over Cs-Ru/CeO2 Catalyst at Ambient Pressure: Effects of Metal Loading and Support Particle Size
Alazar Araia1, Yuxin Wang1, Brandon Robinson1, Changle Jiang1, Christina Wildfire2, Dushyant Shekhawat2, and Jianli Hu1
1West Virginia University, Morgantown, WV, USA
2National Energy Technology Laboratory, Morgantown, WV, USA

Chemical Looping Ammonia Synthesis: Microwave and Thermal Fixed Bed Systems
Sean W. Brown1, Candice Ellison2, Dushyant Shekhawat2, and Jianli Hu1
1West Virginia University, Morgantown, WV, USA
2National Energy Technology Laboratory, Morgantown, WV, USA

SESSION B: INDUSTRIAL MICROWAVES

INVITED: New World of Internet-of-Energy with Wireless Power Transfer via Microwaves
Naoki Shinohara
Kyoto University, Kyoto, Japan

Microwave Drying of Lithium Oxides for Battery Manufacturing
Kenneth Kaplan
Cellenceor, Inc., Ankeny, IA, USA

Control of Phase Offset Between Coherent Microwave Sources for Industrial Applications
John F. Gerling
Gerling Consulting, Inc., Gilroy, CA, USA

Improved Manufacturing Through Continuous High Temperature Microwave Process: The DESTINY Project
Koen Van Reusel12, Dimitrios Giannopoulos1, Luis Guaita2, Angel Lopez8, Paolo Chiariotti4, Beatriz Garcia4, Ana Felis4, Oscar Centelles7, Kersten Marx8, Lukas Schmidt4, Kerstin Walter10, Ana Santos11, Marco Molica Colella12, Jose Fernandes Pereira14
10:55am - 11:10am  
COFFEE BREAK

11:10am - 12:30pm  
CONCURRENT SESSIONS

SESSION A: MICROWAVES IN FOOD ENGINEERING

A Dry, Flexible, Modular and Digital Microwave System for Pasteurization at Atmospheric Pressure  
Klaus M. Baumgaertner, Markus Dingeldein, Guido Kassel, Tom Georgi, Markus Reichmann, Daniel Baars, Parth Patel, Moritz Gorath, and Robert Mueller  
Muegge GmbH, Reichelsheim (Odenwald), Germany

Development of Solid-State Microwave Defrosting Strategies with Adaptive Power and Shifting Frequency  
Ran Yang and Jiajia Chen*  
University of Tennessee, Knoxville, TN, USA

Product-Friendly Heating and Drying of Model Food Using a Solid-State Microwave Generator  
Isabel Kalinke and Ulrich Kulozik  
Technical University Munich, Munich, Germany

Electric Heating Technologies: Ohmic and Microwave Heating, Comparison of Industrial Applications  
Pablo M Coronel¹, Josip Simunovic²  
¹CRB Consulting Engineers, Cary, NC  
²North Carolina State University, Raleigh, NC
SESSION B: BIOLOGICAL APPLICATIONS

Microwave Soil Heating Promotes Strawberry Runner Production and Progeny Performance
Graham I. Brodie¹, Dylan J. McFarlane², Muhammed J. Khan¹, Valerie B.G. Phung¹, and Scott W. Mattner²
¹The University of Melbourne, Dookie, Australia
²VSICA Research and La Trobe University, Melbourne, Australia

Effect of Microwave Treatment of Soil in a Metal Planter on Crop Yield
Raymond L. Boxman¹,² and Amogh Panchagatti¹
¹Tel Aviv University, Tel Aviv, Israel
²Clear Wave Ltd, Herzliya, Israel

Microwaves as the Optimal Tool for Microbiological Decontamination of Air and Surfaces
Iurie A. Bosneaga
Institute of Applied Physics, Chisinau, Republic of Moldova

12:30pm - 1:05pm NETWORKING LUNCHEON (Posters and Exhibits Open)

1:05pm - 2:05pm POSTER & EXHIBITOR SESSION

2:05pm - 2:20pm SPECIAL PRESENTATION: UIE 2024
Koen Van Reusel, Laborelec, Belgium

2:20pm - 3:40pm MICROWAVE CHEMISTRY II

Effective Microwave Heating of Catalysts: Comparison of Electric and Magnetic Fields
Daniel R. Slocombe¹, Alex J. L. Morgan¹, Xiangyu Jie², and Peter P. Edwards²
¹Cardiff University, Cardiff, UK
²University of Oxford, Oxford, UK

Material/Chemical Recycling via CO2-Free Emissions by Using Microwave Flash Pyrolysis of Waste Plastics
Anna Sawai and Satoshi Horikoshi
Sophia University, Chiyoda-ku, Tokyo, Japan

Microwave Catalytic Non-Oxidative Conversion of a Model Natural Gas to Hydrogen and Carbon Nanotubes
Changle Jiang, Sonit Balyan, Brandon Robinson, Alazar Araia, Yuxin Wang, and Jianli Hu
West Virginia University, Morgantown, WV, USA
Microwave-Enhancement Conversion of Methane into Aromatics Over Mo/ZSM-5 Catalysts
Victor Abdelsayed\textsuperscript{1,2}, Ashraf Abedin\textsuperscript{1,2}, Pranjali D. Muley\textsuperscript{1,2}, Hari P. Paudel\textsuperscript{1,2}, and Daniel J. Haynes\textsuperscript{1}
\textsuperscript{1}National Energy Technology Laboratory, Morgantown, WV, USA
\textsuperscript{2}NETL Research Support Contractor, Morgantown, WV, USA

3:40pm - 3:50pm
AWARDS & CLOSING REMARKS
Multifrequency Dielectric Properties Measurement Method Based on Coplanar Waveguide
Pablo Santón¹, J. Vicente Balbastre², Mariano Baquero², Ruth De los Reyes¹, and Elías De los Reyes²
¹Microbiotech S.L., Vilamarxant, Spain
²Polytechnic University of Valencia, Valencia, Spain

Microwave-Assisted Frying and Post-Frying of French Fries
Xu Zhou, Zhongwei Tang, and Juming Tang
Washington State University, Pullman, WA, USA

The MATS Process Validation
Moses A. Magana
915 Labs, Denver, CO, USA

Characterizing the Effect of Oven Geometry on the Modeling Accuracy of Microwave Heating
Kartik Verma, Hao Gan, and Jiajia Chen¹
University of Tennessee, Knoxville, TN, USA

Solid-State RF Energy Section Business Meeting
Friday, June 17th from 9am-12pm.
All are welcome. RSVP to alicia.standridge@impi.org
Dr. Robert Welton
Senior Scientist, Oak Ridge National Laboratory, USA

“Overview of radio frequency and microwave driven plasma ion sources for particle accelerators”

Particle accelerators are among the most important scientific tools of the modern era. Many of the large hadron facilities employ accelerator complexes which include cyclotrons, synchrotrons, storage rings, linear or tandem accelerators and deliver ion beams of very high-intensity and/or very high-energy to their user facilities. These accelerator complexes require the injection of positive or negative ions of varying charge states which are produced in bright ion sources where ions are typically formed within a plasma. Increasingly, RF and microwave systems are being utilized, to generate these ion-rich plasmas due to their high reliability, minimal use of consumable components, and ability to access very high charge states. This keynote address discusses the basic mechanisms of ion formation and plasma generation as well as some specifics of RF/microwave generators, matching circuits and plasma coupling structures. The ever-growing demands of microwave systems for electron cyclotron resonance ion sources, operating at frequencies from 2.45 GHz to 75 GHz, for nuclear physics research and applications are also outlined.

Dr. Jan Boshoff
Co-founder and CEO, Nu:ionic Technologies Inc, Canada

“Multi-megawatt industrial microwave systems for the production of low carbon hydrogen and other process applications”

Nu:ionic Technologies’ Teal Hydrogen production technology is a unique cost-effective low carbon hydrogen production technology at distributed scale. The innovative use of industrial microwave technology in its large scale catalytic reformer reactors reduces fossil fuel demand by 30% and is significantly more compact than conventional gas reformers. This presentation provides an overview of the technology and multi-disciplinary approach to scale-up on its pathway to realize multi-megawatt gas conversion reactors.
IMPI’s 56th Annual Microwave Power Symposium (IMPI 56)

Invited Speakers

Dr. Gregory Dudley
Eberly Family Distinguished Professor, West Virginia University, USA

Dr. Guido Link
Head of Materials-Processing with Microwaves, Institute for Pulsed Power and Microwave Technology, Karlsruhe Institute of Technology, Germany

Dr. Alberto Maistrello
Researcher, Consorzio RFX, Italy

Dr. Charles Manière
Chargé de Recherche, CNRS-CRISMAT Laboratory, France

Dr. Robert Mueller
General Manager, Muegge GmbH, USA

Dr. Zoya Popovic
Distinguished Professor, Lockheed Martin Endowed Chair in RF Engineering, University of Colorado, Boulder, USA

Dr. Bartłomiej Salski
Professor, Warsaw University of Technology, Poland

Dr. Naoki Shinohara
Professor, Kyoto University, Japan
Special thanks to the IMPI 56 Technical Program Committee for their dedication to this Symposium:

**Chairs**
Vadim Yakovlev, Worcester Polytechnic Institute, USA, Chair
Candice Ellison, Leidos/National Energy Technology Laboratory, USA, Vice-Chair

**Organizers of Special Sessions**
Raymond Boxman, Tel Aviv University, Israel
Ulrich Erle, Nestle R&D, USA
Marzena Olszewska-Placha, QWED, Poland
Marilena Radoiu, Microwave Technologies Consulting, France

**Members**
Eleanor Binner, University of Nottingham, UK
Graham Brodie, University of Melbourne, Australia
John F. Gerling, Gerling Consulting, Inc., USA
Satoshi Horikoshi, Sophia University, Japan
B. Reaja Jayan, Carnegie Mellon University, USA
Yang Jiao, Shanghai Ocean University, China
Birgitta Raaholt, Research Institute of Sweden, Sweden
Klaus Werner, pinkRF B.V., Netherlands
Name:  _____________________________________________________________________________________________
Title:  _______________________________________________________________________________________________
Company:  ____________________________________________________________________________________________
Address:  _____________________________________________________________________________________________
City:  __________________________ State/Prov.:  __________________________ Postal Code:  
Country:  __________________________ Phone:  __________________________ Email:  __________________________

**SYMPOSIUM (Circle one)**

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*Registration Fee Includes:* Attendance at all in-person sessions from Tuesday, June 14, 2022 at 3:30pm until Thursday, June 16th at 3:45pm, Welcome Reception, two continental breakfasts, four coffee breaks, two networking luncheons, exhibition hall access, online access and printed copy of the conference Proceedings.

**ADD-ONS (Optional)**

- Workshop on Computer Modeling:
  - IMPI Member: $299
  - Non-Member: $349
- Solid State RF Energy Luncheon: $50
- Group Dinner at local restaurant: $50

**MEMBERSHIP**

*Not a member? Join IMPI now and save significantly on registration:*

- Professional Membership: $220
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- Corporate Membership: $2,500

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TOTAL DUE: $ _________________
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IMPI 56 EXHIBITORS
HEALTH & SAFETY PROTOCOLS: IMPI is committed to offering an in-person IMPI 56 Symposium in June of 2022 in Savannah, Georgia, USA. We continue to closely monitor COVID developments, and will implement policies and best practices according to CDC guidance to ensure the health and safety of our attendees, based on the conditions at the time of the event. This may include: proof of vaccination, a negative COVID test and/or an indoor masking requirement. Real-time updates from the City of Savannah are available here. Updated guidance will be issued here, as warranted.