73rd Gaseous Electronics Conference

October 5-9, 2020

Fully Virtual for the First Time

Conference Information: http://apsgec.org/gec2020/

Registration: http://www.apsgec.org/gec2020/registration.php

The **Gaseous Electronics Conference (GEC)**, a special meeting of the APS Division of Atomic, Molecular, and Optical Physics (DAMOP), promotes ideas on the physical and chemical processes and dynamics taking place in partially ionized, collisional plasma and between the atoms, molecules, charged particles, photons, waves, and fields. In recent years, GEC has also been a leading venue for reporting on emergent areas of plasma-biotechnology, plasma medicine, plasma-metal catalysis, and atmospheric-pressure plasma systems.

Program Information

http://meetings.aps.org/Meeting/GEC20/APS_epitome

- Virtual parallel sessions of invited & contributed papers, poster sessions
- Will Allis prize talk
- Tutorial/Workshops
  - Plasma Physics Fundamentals
  - AI & ML in Plasma Science & Beyond;
  - Plasma Enhanced Atomic Layer Etch/Atomic Layer Deposition;
  - Validation for Low Temperature Plasma Simulations and Experiments
  - Realistic implementation of Plasma-surface Interactions in Simulations of Technological Plasmas
- Special Events
  - Welcome Remarks
  - Women in Plasma Science
  - Student Networking
  - Closing Ceremony with Student Awards
- Special Sessions
  - Perspective in Current Trends and Future of Plasma Science
  - Plasma Sterilization and Disinfection: Research and Development Efforts Relevant to the Fight Against COVID 19
  - Federal Agency Perspectives in Plasma Research
- Exhibits from Sponsors

Edward Barnat, Sandia National Laboratories (Chair)

Kallol Bera, Applied Materials, Inc. (Secretary)

Program includes

- Electron Collisions With Atoms and Molecules
- Arc Plasma and Electrical Switching
- Collisional Data for Plasma Applications
- Dielectric Barrier Discharges and Low Temperature Jets
- Collisions Involving Positron and Positronium
- Collisional Processes and Related Topics
- Plasma Deposition
- Heavy Particle Collisions
- Modeling and Simulation: Chemical Reactions
- Glows: DC, Pulsed, Microwave, Others
- Magnetized and Dense Plasmas
- Plasma Sources
- Modeling and Simulation: Plasma Sources
- Sheaths, Patterns, and Waves
- Inductively Coupled Plasmas
- Capacitively Coupled Plasmas
- Nanomaterials
- Magnetized Plasmas
- Laser Diagnostics
- Electrical Probe Diagnostics
- Optical Diagnostics
- Modeling and Simulation: Validation and Verification
- Modeling and Simulation: Computational Methods
- Plasmas in Liquids
- Plasma-liquid Interaction
- Dielectric Barrier Discharges and Low Temperature Jets
- Modeling and Simulation: Breakdown and Kinetics
- Plasma Etching
- Reaction and Electron Kinetics
- Gas Phase Plasma Chemistry
- Atmospheric Pressure Plasma Characterization
- Electric Propulsion
- Energy and the Environment
- High-pressure Discharges and Microdischarges
- Plasma Medicine and Agriculture
- Plasma Biomedicine
- Dusty Plasma
- Atmospheric Plasma Material Treatment and Synthesis