

Call for paper abstract for AIAA Aviation 2022 (First for PGC)

Please direct questions to:

Mirko Gamba, University of Michigan, mirkog@umich.edu

Papers are sought that are pertinent to the development and application of Pressure Gain Combustion (PGC) system with application to propulsion and power systems. Papers on applications are particularly encouraged. PGC covers any periodic process producing work through confinement during heat release. Relevant subtopic areas include:

1. **Component and Subsystem Design and Evaluation** covering evaluations of PGC subsystems such as ignition, cooling, propellant injection, modeling validation activities and trade studies for subsystem optimization.
 2. **Combustor Testing, Operability and Performance** covering proposed or existing empirical efforts or facilities intended to explore PGC device stability, operating range, propellant condition sensitivity, exit flow conditions, etc.
 3. **Applications and System Integration** describing terrestrial, atmospheric or in-space applications of PGC devices, innovative configurations and concepts, studies and considerations for system integration as well as generalized performance estimates.
 4. **Physics Modeling and Exploration** covering fundamental investigations of detonation physics and chemistry, deflagration-to-detonation transition (DDT), detonation dynamics, constant or confined volume combustion, propellant injection and mixing, characterization of PGC loss mechanisms and heat transfer analyses.
 5. **Measurement and Diagnostic Techniques** examining proposed, or experimental instrumentation and data collection approaches for PGC systems.
- Component and Subsystem Design and Evaluation
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