

Abstract Submittal Form

JANNAF

62nd JPM / 10th MSS / 8th LPS / 7th SPS

Joint Subcommittee Meeting

Nashville, TN • 1 – 5 June 2015

NEW Abstract Due Date: Friday, 13 February 2015

Fields with an asterisk (*) are required.

* **Title:** Application of Additively Manufactured Components in Rocket Engine Turbopumps

* Submitted to: JPM MSS LPS SPS

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Unclassified Abstract (250 – 300 words; do not include figures or tables)

* Type or copy and paste your abstract here.

The use of additive manufacturing technology has the potential to revolutionize the development of turbopump components in liquid rocket engines. When designing turbomachinery with the additive process there are several benefits and risks that are leveraged relative to a traditional development cycle. This topic explores the details and development of a 90,000 RPM Liquid Hydrogen Turbopump from which 90% of the parts were derived from the additive process. This turbopump was designed, developed and will be tested later this year at Marshall Space Flight Center.

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- Direct questions to Shelley Cohen, by phone at 410.992.7302 x 215, or email to scohen@cpiaac.jhu.edu.

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