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## **C3Or4C-05: Advances in Cryocooler Control Electronics for Linear Cryocoolers**

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An increasing number of space missions developed for Tactical and Strategic space applications require the development of custom linear cryocoolers cryocoolers and control electronics that are adapted to meet the specific size, weight, power, cost, and reliability requirements unique to each mission. Creare and West Coast Solutions present enhancements to our micro-sized cryocooler control electronics (MCCE) family. The MCCE, originally developed for CubeSat applications in the 100 W class, has been enhanced to provide additional features required in many space applications, including higher power operation, wider operating voltage, and active vibration cancelation. In this paper, we present updated results showing improved reduction of emitted vibrations achieved with an engineering model of the Air Liquide LPTC pulse-tube cryocooler at reduced (100W) and full-power (160W) operation.

**Author:** Dr KASZETA, Richard (Creare LLC)

**Co-authors:** KIRKCONNELL, Carl (West Coast Solutions); Mr GREGOIRE, James (Creare LLC); Mr BAXTER, Jason (West Coast Solutions); Ms GREENHALGH, Jessie (Creare LLC); BENADIBAH, Kevin (Air Liquide Advanced Technologies); ZAGAROLA, Mark (Creare LLC); HUDSON, Noah (West Coast Solutions); MINE, Pierre-Olivier (Air Liquide Advanced Technologies); Mr JACKSON, Wyatt (West Coast Solutions); JUANICO, Yannick (Unknown)

**Presenter:** ZAGAROLA, Mark (Creare LLC)

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