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## **SESSION 16: Cryocooler Applications and Integration**

Paper 16.5

Thursday ORAL Session

2:00 PM

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### ***Evaluation of Helium Circulators for Remote Cooling***

*J.A Koch, E. Seitz, S.K Gandla, and S. Dunn, Sumitomo (SHI) Cryogenics of America Inc, Allentown, PA*

Forced flow gaseous helium circuits are a popular method of cooling a remote target. The flow for these circuits can either be generated by a cryofan, or an ambient temperature compressor with a recuperator. Each system has fundamental limitations, such as the low pressure head of the cryofan and the recuperator losses of the compressor circuit. In this paper, a model of each remote delivery circuit is developed, and the benefits and limitations of these methods are discussed and evaluated.