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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.