



Contribution ID: 346

Type: **Contributed Oral Presentation**

## First results from the Cornell high Q cw full linac cryo-module

*Monday 29 June 2015 16:15 (15 minutes)*

Cornell University has finished building a 10 m long superconducting accelerator module as a prototype of the main linac of a proposed ERL facility. This module houses 6 superconducting cavities- operated at 1.8 K in continuous wave (CW) mode - with individual HOM absorbers and one magnet/ BPM section. In pushing the limits, a high quality factor of the cavities ( $2 \cdot 10^{10}$ ) and high beam currents (100 mA accelerated plus 100 mA decelerated) were targeted. We will review the design shortly and present the results of the components tested before the assembly. The main focus of the paper will be on preparation of the first cool-down, being scheduled by the time of the conference.

**Author:** EICHHORN, Ralf (Cornell University)

**Co-authors:** SABOL, Dan (Cornell University); Dr SMITH, Eric (Cornell University); HOFFSTAETTER, Georg (Cornell University); SEARS, James (Cornell University); QUIGLEY, Peter (Cornell University); O'CONNEL, Tim (Cornell University)

**Presenter:** EICHHORN, Ralf (Cornell University)

**Session Classification:** C1OrG - Superconducting RF Systems I

**Track Classification:** CEC-07 - Superconducting RF Systems