

Dynamic simulations of large cryogenic systems for future particle accelerators



5-6 months internship in CEA Grenoble, France

Objectives:

- Review the compression-expansion refrigeration cycles, e.g. Future Circular Collider, ITER, JT-60;
- Model the stable conditions of various cryoplants;
- Perform the dynamic simulations of the transition phases (cold load change);

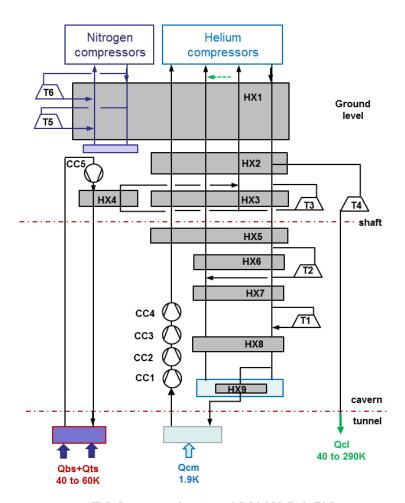
<u>Student's profile</u>:

- Required: good background in thermodynamics, fluid dynamics, numerical calculation abilities (e.g. Matlab), very good English;
- Appreciated: previous engineering experiences (e.g. long term projects, scientific circles, internships), basic French.

Length: 5-6 months, starting from February/March 2019

Application deadline: mid-November 2018

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FCC cryoplant – 100kW@4.5K

