On-line training advertisement:
Lectures on Superconducting Magnet test stands, Magnet protections and Diagnostics

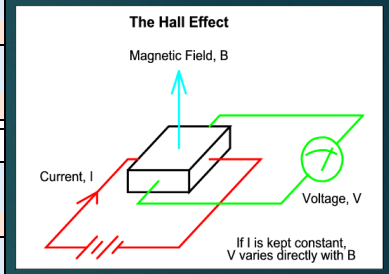
- 20 lectures
- Speakers from worldwide laboratories (BNL, CEA, CERN, EPFL, FNAL, IFJ PAN, LBNL, Tampere)
- First part
  - the main aspects of a superconducting magnet test stand (cryogenics systems, power supplies, current leads).
- Second part
  - the design and use of magnet protection systems (high voltage electrical integrity checks, energy extraction, strip heaters, CLIQ, quench detection)
- Third part
  - the various measurement techniques related to magnet health monitoring (magnetic, thermal, mechanical behaviors and AC loss).
- Last part
  - a dedicated talk will introduce the problematic of the protection of large fusion superconducting coils.

On-line training advertisement:
Lectures on Superconducting Magnet test stands, Magnet protections and Diagnostics




	First week	Monday (29/05/2023)	Tuesday (30/05/2023)	Wednesday (31/05/2023)	Thursday (01/06/2023)	Friday (02/06/2023)
Course 1	16:30 - 17:30 (45 min + 15 min questions + 10 min break)		Superconductivity, Cryogenics, Magnets: why do we test? *Ezio Todesco (CERN)*	Introduction to the cryogenics of large superconducting systems *Philippe Bredy (CEA Saclay)*	Current leads for test cryostats *Sandor Feher (BNL)*	Electrical integrity tests and electrical failure diagnostics *Jaromir Ludwin (IFJ PAN)*
Course 2	17:40 - 18:40 (45 min + 15 min questions)		Phenomenology behind superconducting magnets training *Paolo Ferracin (LBNL)*	Protection against excessive pressure in He cryostats *Jean-Marc Poncet (CEA)*	Power supplies for superconducting magnets *Samer Yamine (CERN)*	Introduction to quench detection *Stoyan Stoynev (FNAL)*

	Second week	Monday (05/06/2023)	Tuesday (06/06/2023)	Wednesday (07/06/2023)	Thursday (08/06/2023)	Friday (09/06/2023)
Course 1	16:30 - 17:30 (45 min + 15 min questions + 10 min break)	Quench protection with external energy extraction *Joshi Piyush (BNL)*	Quench protection with CLIQ and eCLIQ *Emmanuelle Ravaioli (CERN)*	Fiber Optic Sensors for temperature monitoring and quench detection *Hugo Bajas (EPFL)*	Magnetometers theory *Ken-ichi Sasaki (KEK)*	Acoustic measurements : advantages and limits *Maxim Marchevsky (LBNL)*
Course 2	17:40 - 18:40 (45 min + 15 min questions)	Quench protection with strip heaters *Tiina Salmi (Tempere)*	Issues with quench detection for HTS magnet protection *Marius Wozniak (CERN)*	Mechanical measurements in superconducting magnets: practice and theory *Michael Guinchard (CERN)*	Magnetic measurements in accelerator magnets *Lucio Fiscareli (CERN)*	Data Acquisition System *Odd Oyvind Andreassen (CERN)*



	Third week	Monday (12/06/2023)
Course 1	16:30 - 17:30 (45 min + 15 min questions + 10 min break)	Quench detection and protection of fusion magnets *Jean-Luc Duchateau (CEA)*
Course 2	17:40 - 18:40 (45 min + 15 min questions)	AC losses in superconductors: theory and methods of measurements *Davide Uglietti (EPFL)*