

# 1st Workshop on Accelerator Magnets in HTS



## Report of Contributions

Contribution ID: 0

Type: **not specified**

## Welcome & Scope

*Wednesday 21 May 2014 09:00 (15 minutes)*

**Presenter:** ROSSI, Lucio (CERN)

**Session Classification:** I. Objectives and Coated Conductors (CC) overview

Contribution ID: 1

Type: **not specified**

## **The FCC Magnet Program: opportunities for HTS (25' + 5')**

*Wednesday 21 May 2014 09:15 (30 minutes)*

**Presenter:** BOTTURA, Luca (CERN)

**Session Classification:** I. Objectives and Coated Conductors (CC) overview

Contribution ID: 2

Type: **not specified**

## **EuCARD2 Magnet Objectives and Main Challenges (25'+5')**

*Wednesday 21 May 2014 09:45 (30 minutes)*

**Presenters:** KIRBY, Glyn (CERN); DURANTE, Maria (CEA Saclay)

**Session Classification:** I. Objectives and Coated Conductors (CC) overview

Contribution ID: 3

Type: **not specified**

## **Overview and Synergies of HTS Magnet Programs (25'+5')**

*Wednesday 21 May 2014 10:45 (30 minutes)*

**Presenter:** LARBALESTIER, David (National High Magnetic Field Laboratory)

**Session Classification:** I. Objectives and Coated Conductors (CC) overview

Contribution ID: 4

Type: **not specified**

## **Outstanding Issues of HTS for High Quality Magnets (25'+5')**

*Wednesday 21 May 2014 11:15 (30 minutes)*

**Presenter:** MAEDA, Hideaki (RIKEN)

**Session Classification:** I. Objectives and Coated Conductors (CC) overview

Contribution ID: 5

Type: **not specified**

## **CC Lay-out Overview: Pros and Cons (25'+5')**

*Wednesday 21 May 2014 11:45 (30 minutes)*

**Presenter:** OBRADORS, Xavier (Barcelona University)

**Session Classification:** I. Objectives and Coated Conductors (CC) overview

Contribution ID: 6

Type: **not specified**

## **HTS development of EuCARD-2 conductor and industrialization at BHTS (30'+5')**

*Wednesday 21 May 2014 14:00 (35 minutes)*

**Presenter:** USOSKIN, Alexander (Bruker HTS GmbH)

**Session Classification:** II. Industry of HTS Tapes: performance, length, yield, width. Is it possible to think of round wire? What is now, in 2 years and in 5 years?

Contribution ID: 7

Type: **not specified**

## **HTS development and industrialization at Superpower (25'+5')**

*Wednesday 21 May 2014 14:35 (30 minutes)*

**Presenter:** HAZELTON, Drew (S)

**Session Classification:** II. Industry of HTS Tapes: performance, length, yield, width. Is it possible to think of round wire? What is now, in 2 years and in 5 years?

Contribution ID: 8

Type: **not specified**

## **HTS development and industrialization at Fujikura (25'+5')**

*Wednesday 21 May 2014 15:05 (30 minutes)*

**Presenter:** NEWMAN, Tom (Fujikura)

**Session Classification:** II. Industry of HTS Tapes: performance, length, yield, width. Is it possible to think of round wire? What is now, in 2 years and in 5 years?

Contribution ID: 9

Type: **not specified**

## **HTS development and industrialization at Sumitomo (25'+5')**

*Wednesday 21 May 2014 15:35 (30 minutes)*

**Presenter:** KINOSHITA, Kan (Sumitomo)

**Session Classification:** II. Industry of HTS Tapes: performance, length, yield, width. Is it possible to think of round wire? What is now, in 2 years and in 5 years?

Contribution ID: **10**

Type: **not specified**

## **HTS development and industrialization at Sunam (25'+5')**

*Wednesday 21 May 2014 16:25 (30 minutes)*

**Presenter:** MOON, Seung Hyun (Sunam)

**Session Classification:** II. Industry of HTS Tapes: performance, length, yield, width. Is it possible to think of round wire? What is now, in 2 years and in 5 years?

Contribution ID: 11

Type: **not specified**

## **HTS development and industrialization at SuperOx (25'+5')**

*Wednesday 21 May 2014 16:55 (30 minutes)*

**Presenter:** MOLODYK, Alexander (SuperOx)

**Session Classification:** II. Industry of HTS Tapes: performance, length, yield, width. Is it possible to think of round wire? What is now, in 2 years and in 5 years?

Contribution ID: 12

Type: **not specified**

## **Roebel cable industrial optimization - General Cable Superconductors (25'+5')**

*Wednesday 21 May 2014 17:25 (30 minutes)*

**Presenter:** LONG, Nicholas (V)

**Session Classification:** II. Industry of HTS Tapes: performance, length, yield, width. Is it possible to think of round wire? What is now, in 2 years and in 5 years?

Contribution ID: 13

Type: **not specified**

## Panel Discussion

*Wednesday 21 May 2014 17:55 (35 minutes)*

**Presenters:** COOLEY, Lance (FNAL); BOTTURA, Luca (CERN)

**Session Classification:** II. Industry of HTS Tapes: performance, length, yield, width. Is it possible to think of round wire? What is now, in 2 years and in 5 years?

Contribution ID: 14

Type: **not specified**

## **The FCC Study (25'+5')**

*Thursday 22 May 2014 09:00 (30 minutes)*

**Presenter:** BENEDIKT, Michael (CERN)

**Session Classification:** Special Event: FCC

Contribution ID: 15

Type: **not specified**

## **Conductor on Round Core cable development for accelerator magnets (25'+5')**

*Thursday 22 May 2014 14:30 (30 minutes)*

**Presenter:** VAN DER LAAN, Danko (A)

**Session Classification:** IV. Cables: discussion on overall J limitation, transverse stress tolerance, M, coupling currents and transposition

Contribution ID: 16

Type: **not specified**

## **Development of high current HTS conductors for Fusion at CRPP (20'+5')**

*Thursday 22 May 2014 15:00 (25 minutes)*

**Presenter:** UGLIETTI, Davide (EPFL)

**Session Classification:** IV. Cables: discussion on overall J limitation, transverse stress tolerance, M, coupling currents and transposition

Contribution ID: 17

Type: **not specified**

## **Development of REBCO Twisted Stacked-Tape Cables for Magnet Applications (20'+5')**

*Thursday 22 May 2014 15:25 (25 minutes)*

**Presenter:** TAKAYASU, Makoto

**Session Classification:** IV. Cables: discussion on overall J limitation, transverse stress tolerance, M, coupling currents and transposition

Contribution ID: 18

Type: **not specified**

## **Slotted core HTS Cable-in-Conduit conductor by industrially feasible process for high current applications: manufacturing and analysis (20'+5')**

*Thursday 22 May 2014 15:50 (25 minutes)*

**Presenter:** CELENTANO, Giuseppe

**Session Classification:** IV. Cables: discussion on overall J limitation, transverse stress tolerance, M, coupling currents and transposition

Contribution ID: 19

Type: **not specified**

## **Cable (20'+5')**

*Thursday 22 May 2014 16:45 (25 minutes)*

**Presenter:** BADEL, Arnaud (CNRS)

**Session Classification:** IV. Cables: discussion on overall J limitation, transverse stress tolerance, M, coupling currents and transposition

Contribution ID: 20

Type: **not specified**

## **Properties of HTS-Roebel cables and the approach for EuCARD-2 (25'+5')**

*Thursday 22 May 2014 17:10 (30 minutes)*

**Presenter:** GOLDACKER, Wilfried

**Session Classification:** IV. Cables: discussion on overall J limitation, transverse stress tolerance, M, coupling currents and transposition

Contribution ID: 21

Type: **not specified**

## Discussion

*Thursday 22 May 2014 17:40 (35 minutes)*

**Session Classification:** IV. Cables: discussion on overall J limitation, transverse stress tolerance, M, coupling currents and transposition

Contribution ID: 22

Type: **not specified**

## **Overview of CC critical surface for EuCARD-2 (25'+5')**

*Thursday 22 May 2014 09:30 (30 minutes)*

**Presenter:** SENATORE, Carmine (University of Geneva)

**Session Classification:** III. Cables: Properties of Coated Conductors and Tapes

Contribution ID: 23

Type: **not specified**

## **Magnetization modelling and measurements (25'+5')**

*Thursday 22 May 2014 11:30 (30 minutes)*

**Presenter:** AMEMIYA, Naoyuki (Kyoto University)

**Session Classification:** III. Cables: Properties of Coated Conductors and Tapes

Contribution ID: 24

Type: **not specified**

## **Ic vs strain, MQE and M evaluation (25'+5')**

*Thursday 22 May 2014 10:30 (30 minutes)*

**Presenter:** DHALLE, Marc

**Session Classification:** III. Cables: Properties of Coated Conductors and Tapes

Contribution ID: 25

Type: **not specified**

## **Review of $I_c$ variation, $R_c$ , RRR and other parameters (25'+5')**

*Thursday 22 May 2014 10:00 (30 minutes)*

**Presenter:** ABRAIMOV, Dmytro (N)

**Session Classification:** III. Cables: Properties of Coated Conductors and Tapes

Contribution ID: 26

Type: **not specified**

## **Mechanical properties of Rooble (20'+5')**

*Thursday 22 May 2014 12:25 (25 minutes)*

**Presenter:** KARIO, Anna (K)

**Session Classification:** III. Cables: Properties of Coated Conductors and Tapes

Contribution ID: 27

Type: **not specified**

## **Design parameter space of Rooble cable (20'+5')**

*Thursday 22 May 2014 12:00 (25 minutes)*

**Presenters:** BALLARINO, Amalia (CERN); FLEITER, Jerome (CERN)

**Session Classification:** III. Cables: Properties of Coated Conductors and Tapes

Contribution ID: 28

Type: **not specified**

## **Strain measurements and Ic effect (20'+5')**

*Thursday 22 May 2014 12:50 (25 minutes)*

**Presenter:** SUGANO, Michinaka (High Energy Accelerator Research Organization (JP))

**Session Classification:** III. Cables: Properties of Coated Conductors and Tapes

Contribution ID: 29

Type: **not specified**

## **VUW (20'+5')**

Contribution ID: **30**

Type: **not specified**

## **Powder Optimization (15'+5')**

**Presenter:** RIKEL, Mark (Nexans SuperConductors)

Contribution ID: 31

Type: **not specified**

## **Bi-2212 round wire development and industrialization at OST (25'+5')**

*Friday 23 May 2014 08:45 (30 minutes)*

**Presenter:** HUANG, Yibing (Oxford Superconducting Technology)

**Session Classification:** V. Bi-2212 - I

Contribution ID: 32

Type: **not specified**

## **Optimization parameters space (best performance and compromise) (25'+5')**

*Friday 23 May 2014 09:15 (30 minutes)*

**Presenter:** HELLSTROM, Eric

**Session Classification:** V. Bi-2212 - I

Contribution ID: 33

Type: **not specified**

## **Wire critical surface and cable properties (25'+5')**

*Friday 23 May 2014 09:45 (30 minutes)*

**Presenter:** GODEKE, Arno (Lawrence Berkeley National Laboratory)

**Session Classification:** V. Bi-2212 - I

Contribution ID: 34

Type: **not specified**

## **Fermi program of optimizing Bi-2212 conductor (25'+5')**

*Friday 23 May 2014 10:35 (30 minutes)*

**Presenter:** COOLEY, Lance

**Session Classification:** V. Bi-2212 - I

Contribution ID: 35

Type: **not specified**

## **Alternative Bi-2212 fabrication methods (25'+5')**

*Friday 23 May 2014 13:30 (30 minutes)*

**Presenter:** MALAGOLI, Andrea

**Session Classification:** VI. Bi-2212 - II

Contribution ID: 36

Type: **not specified**

## **Conclusions, next WAMHTS (10'+5')**

*Friday 23 May 2014 14:20 (25 minutes)*

**Presenter:** ROSSI, Lucio (CERN)

**Session Classification:** VI. Bi-2212 - II

Contribution ID: 37

Type: **not specified**

## **Bi-2212 magnet program at LBNL (15'+5')**

*Friday 23 May 2014 14:00 (20 minutes)*

**Presenter:** GODEKE, Arno (Lawrence Berkeley National Laboratory)

**Session Classification:** VI. Bi-2212 - II

Contribution ID: **38**

Type: **not specified**

## **Progress in high pinning tape (25'+5')**

**Presenter:** VENKAT, Selvamanickam (University of Houston)

Contribution ID: 39

Type: **not specified**

## **Superconducting Magnets R&D in the 10-20 T range for energy frontier machines**

*Friday 23 May 2014 11:30 (45 minutes)*

**Presenter:** ROSSI, Lucio (CERN)

**Session Classification:** Special Event: DESY ARD Lunch Seminar

Contribution ID: 40

Type: **not specified**

## Questions in the room

*Friday 23 May 2014 12:15 (15 minutes)*

**Session Classification:** Special Event: DESY ARD Lunch Seminar