

WPMAG - EUROfusion Working Packages Magnets system



Report of Contributions

Contribution ID: 1

Type: **not specified**

Welcome

Tuesday, 11 February 2020 11:00 (10 minutes)

Presenter: VORPAHL, C.

Contribution ID: 2

Type: **not specified**

Introduction to Prospective R&D

Tuesday, 11 February 2020 11:10 (30 minutes)

Presenter: KEMBLETON, R.

Contribution ID: 3

Type: **not specified**

Test of HTS tapes

Tuesday, 11 February 2020 11:40 (15 minutes)

Task: ENR-PRD.MAG-T012

Presenter: WEISS, Klaus-Peter

Session Classification: Prospective R&D

Contribution ID: 4

Type: **not specified**

Progress in chemical HTS tape preparation

Tuesday, 11 February 2020 11:55 (15 minutes)

Task: ENR-PRD.MAG-T013

Presenter: WOLF, Michael

Session Classification: Prospective R&D

Contribution ID: 5

Type: **not specified**

Conceptual Design of an HTS TF coil for DEMO

Tuesday, 11 February 2020 12:10 (15 minutes)

Task: ENR-PRD.MAG-T014

Presenter: HELLER, Reinhard

Session Classification: Prospective R&D

Contribution ID: 6

Type: **not specified**

Neutron irradiation investigation on HTS tapes

Tuesday, 11 February 2020 13:40 (15 minutes)

Task: ENR-PRD.MAG-T015

Presenter: EISTERER, Michael (TU Wien)

Session Classification: Prospective R&D

Contribution ID: 7

Type: **not specified**

Neutron Irradiation investigation on HTS tapes

Tuesday, 11 February 2020 13:55 (15 minutes)

Task: ENR-PRD.MAG-T016

Presenter: JIRSA, Miloš

Session Classification: Prospective R&D

Contribution ID: 8

Type: **not specified**

Experiments and FE Modeling of stress-strain and AC loss in HTS cables

Tuesday, 11 February 2020 14:10 (15 minutes)

Task: ENR-PRD.MAG-T017

Presenter: NIJHUIS, Arend (University of Twente)

Session Classification: Prospective R&D

Contribution ID: 9

Type: **not specified**

Measurements and Electromechanical model of Twisted stacks

Tuesday, 11 February 2020 14:25 (15 minutes)

Task: ENR-PRD.MAG-T021

Presenter: GRANADOS, Xavier

Session Classification: Prospective R&D

Contribution ID: **10**

Type: **not specified**

HTS tapes Jc (B,T) characterization

Tuesday, 11 February 2020 14:40 (15 minutes)

Task: ENR-PRD.MAG-T018

Presenter: VOJENČIAK, Michal (Institute of Electrical Engineering SAS, Bratislava)

Session Classification: Prospective R&D

Contribution ID: 11

Type: **not specified**

Mechanical FEM model of CORC cable

Tuesday, 11 February 2020 14:55 (15 minutes)

Task: ENR-PRD.MAG-T020

Presenter: VOJENČIAK, Michal (Institute of Electrical Engineering SAS, Bratislava)

Session Classification: Prospective R&D

Contribution ID: 12

Type: **not specified**

Mech. FEM model of stress on sub-cables of conductor for CS based on CORC cables

Tuesday, 11 February 2020 15:10 (15 minutes)

Task: ENR-PRD.MAG-T019

Presenter: VOJENČIAK, Michal (Institute of Electrical Engineering SAS, Bratislava)

Session Classification: Prospective R&D

Contribution ID: 13

Type: **not specified**

EXTRA - Report on direct spooling of partially equipped CroCos

Tuesday, 11 February 2020 15:25 (15 minutes)

Task: ENR-PRD.MAG-T022

Presenter: FIETZ, Walter (KIT / ITEP)

Session Classification: Prospective R&D

Contribution ID: 14

Type: **not specified**

General discussion on TS

Tuesday, 11 February 2020 15:40 (15 minutes)

Presenter: ALL

Session Classification: Prospective R&D

Contribution ID: 15

Type: **not specified**

PRD activities: meeting conclusions

Tuesday, 11 February 2020 15:55 (15 minutes)

Presenter: ALL

Session Classification: Prospective R&D

Contribution ID: 16

Type: **not specified**

Status of the SULTAN preparation for the HTS quench experiments

Tuesday, 11 February 2020 16:25 (15 minutes)

Presenter: PIERLUIGI BRUZZONE

Session Classification: Cable R&D and Tests (AMT 5.3 & 5.5)

Contribution ID: 17

Type: **not specified**

Development of high-current HTS cables at KIT

Tuesday, 11 February 2020 16:40 (15 minutes)

Task: MAG-5.3-T016

Presenter: FIETZ, Walter

Session Classification: Cable R&D and Tests (AMT 5.3 & 5.5)

Contribution ID: **18**

Type: **not specified**

Tests on high-current HTS cables

Tuesday, 11 February 2020 16:55 (15 minutes)

Task: MAG-5.5-T006

Presenter: K-P WEISS + DANIEL NICKEL

Session Classification: Cable R&D and Tests (AMT 5.3 & 5.5)

Contribution ID: 19

Type: **not specified**

HTS conductor design and development at SPC

Tuesday, 11 February 2020 17:10 (15 minutes)

Task: MAG-5.3-T017

Presenters: DICUONZO, Ortensia; UGLIETTI

Session Classification: Cable R&D and Tests (AMT 5.3 & 5.5)

Contribution ID: 20

Type: **not specified**

Development of high-current HTS cables at ENEA

Tuesday, 11 February 2020 17:25 (15 minutes)

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Presenter: Dr AUGIERI, Andrea (ENEA)

Session Classification: Cable R&D and Tests (AMT 5.3 & 5.5)

Contribution ID: 21

Type: **not specified**

General discussion on TS

Tuesday, 11 February 2020 17:40 (15 minutes)

Presenter: ALL

Session Classification: Cable R&D and Tests (AMT 5.3 & 5.5)

Contribution ID: 22

Type: **not specified**

Conclusion

Tuesday, 11 February 2020 17:55 (5 minutes)

Session Classification: Cable R&D and Tests (AMT 5.3 & 5.5)

Contribution ID: 23

Type: **not specified**

Update on EUROfusion context

Wednesday, 12 February 2020 09:00 (30 minutes)

Presenter: VORPAHL, C.

Session Classification: General

Contribution ID: 24

Type: **not specified**

Update on WPMAG

Wednesday, 12 February 2020 09:30 (45 minutes)

Presenter: SEDLAK, Kamil (EPFL-SPC, Switzerland)

Session Classification: General

Contribution ID: 25

Type: **not specified**

ENEA TF winding pack design

Wednesday, 12 February 2020 10:15 (15 minutes)

MAG-2.1-T027

Presenter: TOMASSETTI, Giordano (ENEA)

Session Classification: WP Design Session

Contribution ID: 26

Type: **not specified**

CEA TF winding pack designs (WP#3 and WP#4)

Wednesday, 12 February 2020 10:30 (15 minutes)

MAG-2.1-T026

Presenter: ZANI, Louis (CEA-IRFM)

Session Classification: WP Design Session

Contribution ID: 27

Type: **not specified**

SPC TF winding pack design

Wednesday, 12 February 2020 11:00 (15 minutes)

MAG-2.1-T025; MAG-2.3-T007

Presenter: SEDLAK, Kamil (EPFL-SPC, Switzerland)

Session Classification: WP Design Session

Contribution ID: 28

Type: **not specified**

CEA CS coil design

Wednesday, 12 February 2020 11:15 (15 minutes)

MAG-2.1-T026

Presenter: ZANI, Louis (CEA-IRFM)

Session Classification: WP Design Session

Contribution ID: 29

Type: **not specified**

SPC CS coil design

Wednesday, 12 February 2020 11:30 (15 minutes)

MAG-2.1-T025; MAG-2.3-T007

Presenter: SARASOLA, Xabier

Session Classification: WP Design Session

Contribution ID: **30**

Type: **not specified**

CEA PF coil design

Wednesday, 12 February 2020 11:45 (15 minutes)

MAG-2.1-T026

Presenter: ZANI, Louis (CEA-IRFM)

Session Classification: WP Design Session

Contribution ID: **31**

Type: **not specified**

SPC PF coil design

Wednesday, 12 February 2020 12:00 (15 minutes)

MAG-2.1-T025; MAG-2.3-T007

Presenters: KUMAR, Mithlesh; GUARINO, Roberto

Session Classification: WP Design Session

Contribution ID: 32

Type: **not specified**

General discussion on TS

Wednesday, 12 February 2020 12:15 (15 minutes)

Presenter: ALL

Session Classification: WP Design Session

Contribution ID: **33**

Type: **not specified**

SPC TF Thermal-hydraulic analysis

Wednesday, 12 February 2020 13:45 (15 minutes)

MAG-2.2-T019

Presenter: KUMAR, Mithlesh

Session Classification: Thermal-Hydraulic and Electromagnetic

Contribution ID: 34

Type: **not specified**

CEA thermohydraulic analyses on DEMO TF design + CEA electromagnetic calc.

Wednesday, 12 February 2020 14:00 (20 minutes)

MAG-2.2-T020; MAG-2.3-T008

Presenter: ROSER VALLCORBA + LOUIS ZANI

Session Classification: Thermal-Hydraulic and Electromagnetic

Contribution ID: 35

Type: **not specified**

Support to the thermal-hydraulic design and analysis of the DEMO magnet system

Wednesday, 12 February 2020 14:20 (15 minutes)

MAG-2.2-T018

Presenter: SAVOLDI, Laura (Dipartimento Energia "Galileo Ferraris", Politecnico di Torino)

Session Classification: Thermal-Hydraulic and Electromagnetic

Contribution ID: 36

Type: **not specified**

IPPLM assessment of thermal hydraulic properties of Winding Packs for DEMO

Wednesday, 12 February 2020 14:35 (15 minutes)

MAG-2.2-T017

Presenter: LEWANDOWSKA, Monika

Session Classification: Thermal-Hydraulic and Electromagnetic

Contribution ID: 37

Type: **not specified**

General discussion on TS

Wednesday, 12 February 2020 14:50 (10 minutes)

Presenter: ALL

Session Classification: Thermal-Hydraulic and Electromagnetic

Contribution ID: **38**

Type: **not specified**

Studies on Fast Discharge Units – coil transient voltages

Wednesday, 12 February 2020 15:00 (15 minutes)

MAG-2.4-T006

Presenter: DAN, Mattia

Session Classification: Electric circuit, Feeders, Cryogenics, RAMI (MCD 2.4 - 2.6)

Contribution ID: 39

Type: **not specified**

Cryogenic Studies on DEMO

Wednesday, 12 February 2020 15:15 (15 minutes)

MAG-2.5-T008

Presenter: HOA, Christine (CEA/DRF/IRIG/DSBT)

Session Classification: Electric circuit, Feeders, Cryogenics, RAMI (MCD 2.4 - 2.6)

Contribution ID: 40

Type: **not specified**

Sizing and preliminary design of feeders

Wednesday, 12 February 2020 15:45 (10 minutes)

MAG-2.4-T007-D001

Presenter: GUARINO, Roberto

Session Classification: Electric circuit, Feeders, Cryogenics, RAMI (MCD 2.4 - 2.6)

Contribution ID: 41

Type: **not specified**

Sizing and preliminary design of feeders

Wednesday, 12 February 2020 15:55 (10 minutes)

MAG-2.4-T007-D002

Presenter: SAVOLDI, Laura (Dipartimento Energia "Galileo Ferraris", Politecnico di Torino)

Session Classification: Electric circuit, Feeders, Cryogenics, RAMI (MCD 2.4 - 2.6)

Contribution ID: 42

Type: **not specified**

Alternative TF current circuit (PMU task)

Wednesday, 12 February 2020 16:05 (15 minutes)

PMI-2.1-T030

Presenter: WESCHE, Rainer (EPFL, Swiss PLasma Center)

Session Classification: Electric circuit, Feeders, Cryogenics, RAMI (MCD 2.4 - 2.6)

Contribution ID: 43

Type: **not specified**

RAMI analysis of the DEMO magnet system

Wednesday, 12 February 2020 16:20 (15 minutes)

MAG-2.6-T001

Presenter: BONIFETTO, roberto (Politecnico di Torino)

Session Classification: Electric circuit, Feeders, Cryogenics, RAMI (MCD 2.4 - 2.6)

Contribution ID: 44

Type: **not specified**

RAMI analysis of the cooling loop and He refrigerator

Wednesday, 12 February 2020 16:35 (15 minutes)

MAG-2.6-T002

Presenter: CARLONI, Dario (UKAEA)

Session Classification: Electric circuit, Feeders, Cryogenics, RAMI (MCD 2.4 - 2.6)

Contribution ID: 45

Type: **not specified**

General discussion on TS

Wednesday, 12 February 2020 16:50 (10 minutes)

Presenter: ALL

Session Classification: Electric circuit, Feeders, Cryogenics, RAMI (MCD 2.4 - 2.6)

Contribution ID: 46

Type: **not specified**

Progress in the engineering grant activities

Wednesday, 12 February 2020 17:00 (15 minutes)

Presenter: JOSE, Bennet (CEA Paris-Saclay)

Session Classification: Other

Contribution ID: 47

Type: **not specified**

Final report of the engineering grant

Wednesday, 12 February 2020 17:15 (15 minutes)

Presenter: BONIFETTO, Roberto (Politecnico di Torino)

Session Classification: Other

Contribution ID: 48

Type: **not specified**

Engineering grant 2020 - introduction

Wednesday, 12 February 2020 17:30 (15 minutes)

Presenter: LORENZO, Jose (Barcelona Supercomputing Center)

Session Classification: Other

Contribution ID: 49

Type: **not specified**

Coordination of the Mechanical Analysis

Thursday, 13 February 2020 09:00 (20 minutes)

MAG-3.1-T021

Presenter: BOSO, Daniela (University of Padova)

Session Classification: Mechanics & fabrication (MCD-3.1 & 3.2 & 3.3 & 3.4)

Contribution ID: 50

Type: **not specified**

Design of the mechanical structures and supports of the magnetic system

Thursday, 13 February 2020 09:20 (20 minutes)

MAG-3.1-T022

Presenter: BOSO, Daniela (University of Padova)

Session Classification: Mechanics & fabrication (MCD-3.1 & 3.2 & 3.3 & 3.4)

Contribution ID: 51

Type: **not specified**

Mechanical evaluation of TF coil and structure

Thursday, 13 February 2020 09:40 (15 minutes)

MAG-3.1-T018

Presenter: NUNIO, Francois (CEA)

Session Classification: Mechanics & fabrication (MCD-3.1 & 3.2 & 3.3 & 3.4)

Contribution ID: 52

Type: **not specified**

Mechanical analyses of ENEA TF winding pack 2018

Thursday, 13 February 2020 10:00 (15 minutes)

MAG-3.1-T019

Presenters: GIORGETTI, Francesco (University of Tuscia); TOMASSETTI, Giordano (ENEA)

Session Classification: Mechanics & fabrication (MCD-3.1 & 3.2 & 3.3 & 3.4)

Contribution ID: 53

Type: **not specified**

Mechanical analyses of CS coil

Thursday, 13 February 2020 10:15 (15 minutes)

MAG-3.1-T017

Presenter: SARASOLA, Xabier

Session Classification: Mechanics & fabrication (MCD-3.1 & 3.2 & 3.3 & 3.4)

Contribution ID: 54

Type: **not specified**

CEA industry feasibility studies

Thursday, 13 February 2020 10:45 (15 minutes)

MAG-3.4-T008

Presenter: ZANI, Louis (CEA-IRFM)

Session Classification: Mechanics & fabrication (MCD-3.1 & 3.2 & 3.3 & 3.4)

Contribution ID: 55

Type: **not specified**

Studies on manufact. process for cond. and winding of the DEMO hybrid CS coil

Thursday, 13 February 2020 11:00 (15 minutes)

MAG-3.4-T007

Presenter: BRUZZONE, Pierluigi (EPFL-SPC)

Session Classification: Mechanics & fabrication (MCD-3.1 & 3.2 & 3.3 & 3.4)

Contribution ID: 56

Type: **not specified**

General discussion on TS

Thursday, 13 February 2020 11:15 (15 minutes)

Presenter: ALL

Session Classification: Mechanics & fabrication (MCD-3.1 & 3.2 & 3.3 & 3.4)

Contribution ID: 57

Type: **not specified**

WPMAG19 CICC conductor sample cyclic mechanical performance test

Thursday, 13 February 2020 11:30 (15 minutes)

MAG-4.3-T020

Presenter: NIJHUIS, Arend (University of Twente)

Session Classification: R&D (MCD-4.2 & 4.3)

Contribution ID: 58

Type: **not specified**

JackPot model R&D for conductor critical EM-thermal performance evaluation

Thursday, 13 February 2020 11:45 (15 minutes)

MAG-4.3-T021

Presenter: NIJHUIS, Arend (University of Twente)

Session Classification: R&D (MCD-4.2 & 4.3)

Contribution ID: 59

Type: **not specified**

X-ray tomography on CICC conductors and joints

Thursday, 13 February 2020 12:00 (15 minutes)

MAG-4.3-T022

Presenter: TISEANU, Ion (National Institute for Lasers, Plasma and Radiation Physics (INFLPR))

Session Classification: R&D (MCD-4.2 & 4.3)

Contribution ID: **60**

Type: **not specified**

CEA R&D on DEMO

Thursday, 13 February 2020 12:15 (15 minutes)

MAG-4.3-T023

Presenter: ZANI, Louis (CEA-IRFM)

Session Classification: R&D (MCD-4.2 & 4.3)

Contribution ID: **61**

Type: **not specified**

Test of TF prototype joint

Thursday, 13 February 2020 14:00 (20 minutes)

MAG-4.2-T011

Presenter: D'AURIA, Vincenzo (Swiss Plasma Center - École polytechnique fédérale de Lausanne)

Session Classification: R&D (MCD-4.2 & 4.3)

Contribution ID: 62

Type: **not specified**

Test of RW2 prototype with cabled stabilizer

Thursday, 13 February 2020 13:45 (15 minutes)

MAG-4.2-T011

Presenter: BRUZZONE, Pierluigi (EPFL-SPC)

Session Classification: R&D (MCD-4.2 & 4.3)

Contribution ID: **63**

Type: **not specified**

ENEA sample tests

Thursday, 13 February 2020 14:20 (15 minutes)

MAG-4.3-T024

Presenter: MUZZI, Luigi (ENEA)

Session Classification: R&D (MCD-4.2 & 4.3)

Contribution ID: 64

Type: **not specified**

Design and preparatory work to host the new EDIPO test facility

Thursday, 13 February 2020 14:35 (15 minutes)

MAG-4.3-T025

Presenter: SARASOLA, Xabier

Session Classification: R&D (MCD-4.2 & 4.3)

Contribution ID: 65

Type: **not specified**

General discussion on TS

Thursday, 13 February 2020 14:50 (15 minutes)

Presenter: ALL

Session Classification: R&D (MCD-4.2 & 4.3)

Contribution ID: 66

Type: **not specified**

2019 WPMAG activities: meeting conclusions

Thursday, 13 February 2020 15:05 (30 minutes)

Presenter: ALL

Session Classification: R&D (MCD-4.2 & 4.3)

Contribution ID: 67

Type: **not specified**

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Presenter: MORICI, Luigi (ENEA)

Contribution ID: **68**

Type: **not specified**

Engineering grant 2020 - introduction

Wednesday, 12 February 2020 17:45 (15 minutes)

Presenter: GIANNINI, Lorenzo (ENEA)

Session Classification: Other

Contribution ID: 69

Type: **not specified**

Thermo-Mechanical Simulations

Thursday, 13 February 2020 09:55 (5 minutes)

MAG 3.2

Presenter: NUNIO, Francois (CEA)

Session Classification: Mechanics & fabrication (MCD-3.1 & 3.2 & 3.3 & 3.4)

Contribution ID: 70

Type: **not specified**

Update on DTT

Thursday, 13 February 2020 08:40 (20 minutes)

Presenter: MUZZI, Luigi (ENEA)

Session Classification: DTT Session - for everyone intersted