

Superconductivity and other new Developments in Gantry Design for Particle Therapy



Report of Contributions

Contribution ID: 4

Type: **not specified**

Welcome and introduction

Thursday, 17 September 2015 14:00 (15 minutes)

Presenter: Prof. SCHIPPERS, Marco (Paul Scherrer Institute)

Session Classification: Status, requirements and challenges

Contribution ID: 5

Type: **not specified**

Recent developments and experiences in beam optics of compact gantries for proton therapy

Thursday, 17 September 2015 14:15 (45 minutes)

Presenter: Prof. FLANZ, Jay (Massachusetts General Hospital)

Session Classification: Status, requirements and challenges

Contribution ID: 6

Type: **not specified**

How to keep high quality treatments using a compact gantry

Thursday, 17 September 2015 15:00 (30 minutes)

Presenter: Dr PEARSON, Emma (IBA)

Session Classification: Status, requirements and challenges

Contribution ID: 7

Type: **not specified**

Clinical importance of gantries in particle therapy

Thursday, 17 September 2015 15:30 (30 minutes)

Presenter: Prof. LOMAX, Tony (Paul Scherrer Institute)

Session Classification: Status, requirements and challenges

Contribution ID: 8

Type: **not specified**

Clinical aspects of compact gantry designs

Thursday, 17 September 2015 16:30 (30 minutes)

Presenter: Dr HEESE, Jürgen (Varian Medical Systems Particle Therapy GmbH)

Session Classification: Status, requirements and challenges

Contribution ID: 9

Type: **not specified**

Consequences of fast beam scanning on gantry design

Thursday, 17 September 2015 17:00 (30 minutes)

Presenter: Dr PSOROULAS, Serena (Paul Scherrer Institute)

Session Classification: Status, requirements and challenges

Contribution ID: **10**

Type: **not specified**

Design and Operation of the ProNova SC Gantry

Presenter: Dr DERENCHUK, Laddie (ProNova Solutions, LLC)

Contribution ID: 11

Type: **not specified**

MgB2 Development for magnets in medical applications

Friday, 18 September 2015 09:00 (30 minutes)

Presenter: Mr TROPEANO, Matteo (Columbus Superconductors SpA)

Session Classification: SC magnet technology

Contribution ID: 12

Type: **not specified**

Last developments and performance of Nb₃Sn at CERN

Friday, 18 September 2015 09:30 (30 minutes)

Presenter: Mr DE RIJK, Gijs (CERN)

Session Classification: SC magnet technology

Contribution ID: 13

Type: **not specified**

Cooling methods and cyogenic systems for rotating superconducting magnets

Friday, 18 September 2015 10:00 (30 minutes)

Presenter: Dr BAUDOUY, Bertrand (CEA Saclay)

Session Classification: SC magnet technology

Contribution ID: 14

Type: **not specified**

Dynamic effects on superconducting dipoles used for an ion beam cancer therapy gantry

Friday, 18 September 2015 11:00 (30 minutes)

Presenter: Dr FABBRICATORE, Pasquale (INFN)

Session Classification: SC magnet technology

Contribution ID: 15

Type: **not specified**

Magnet design for carbon therapy gantry, comparison of alternatives to superconducting gantry

Friday, 18 September 2015 11:30 (30 minutes)

Presenter: Dr EBSKAMP, Frank (Danfysik)

Session Classification: SC magnet technology

Contribution ID: 16

Type: **not specified**

Status of the superconducting rotating gantry for heavy-ion therapy

Friday, 18 September 2015 12:00 (30 minutes)

Presenter: Dr IWATA, Yoshiyuki (NIRS)

Session Classification: SC magnet technology

Contribution ID: 17

Type: **not specified**

Compact curved superconducting magnets for an ion therapy gantry using the Canted Cosine Teta geometry

Friday, 18 September 2015 14:00 (30 minutes)

Presenter: Dr CASPI, Shlomo (Lawrence Berkeley National Laboratory)

Session Classification: SC magnet technology

Contribution ID: **18**

Type: **not specified**

Study of a compact curved superconducting dipole for the next generation of gantries at PSI using racetrack coils

Friday, 18 September 2015 14:30 (30 minutes)

Presenter: Dr CALZOLAIO, Ciro (Paul Scherrer Institute)

Session Classification: SC magnet technology

Contribution ID: **19**

Type: **not specified**

Novel lightweight achromatic superconducting magnets for gantries

Friday, 18 September 2015 15:00 (30 minutes)

Presenter: Dr BROMBERG, Leslie (MIT)

Session Classification: SC magnet technology

Contribution ID: 20

Type: **not specified**

Advantages and challenges of superconducting magnets use in gantry design

Thursday, 17 September 2015 17:30 (30 minutes)

Presenter: Dr GERBERSHAGEN, Alexander (Paul Scherrer Institute)

Session Classification: Status, requirements and challenges

Contribution ID: 21

Type: **not specified**

Beam optics in large aperture magnets

Friday, 18 September 2015 16:30 (30 minutes)

Presenter: Mr WAN, Weishi (Lawrence Berkeley National Laboratory)

Session Classification: Gantry beam optics

Contribution ID: 22

Type: **not specified**

Parametrization of an upstream scanning system

Friday, 18 September 2015 17:00 (30 minutes)

Presenter: Dr ACTIS, Oxana (Paul Scherrer Institute)

Session Classification: Gantry beam optics

Contribution ID: 23

Type: **not specified**

Large momentum acceptance super conducting carbon gantry design, and permanent magnet proton gantry design

Friday, 18 September 2015 17:30 (30 minutes)

Presenters: Prof. FLANZ, Jay (Massachusetts General Hospital); Dr PULLIA, Marco (Fondazione CNAO)

Session Classification: Gantry beam optics

Contribution ID: 24

Type: **not specified**

Welcome at PSI: Organization and GFA

Saturday, 19 September 2015 09:00 (20 minutes)

Presenter: Prof. RIVKIN, Leonid (Paul Scherrer Institute)

Session Classification: Other new developpments

Contribution ID: 25

Type: **not specified**

PSI Gantry 3

Saturday, 19 September 2015 09:20 (20 minutes)

Presenter: Dr KOSCHIK, Alexander (Paul Scherrer Institute)

Session Classification: Other new developpments

Contribution ID: 26

Type: **not specified**

Proton therapy at PSI

Saturday, 19 September 2015 09:40 (20 minutes)

Presenter: Dr SAFAI, Sairos (Paul Scherrer Institut)

Session Classification: Other new developpments

Contribution ID: 27

Type: **not specified**

Optimal Transport Systems for Treatment by Proton and Ion Beams

Saturday, 19 September 2015 10:00 (20 minutes)

Presenter: Mr KATS, Mark (ITEP)

Session Classification: Other new developpments

Contribution ID: 28

Type: **not specified**

A gantry design based on several identical superconducting magnets

Saturday, 19 September 2015 10:40 (30 minutes)

Presenter: Dr OWEN, Hywel (University of Manchester)

Session Classification: Other new developpments

Contribution ID: **30**

Type: **not specified**

Round Table discussion