

**CERN-ICEC-STFC-hosted  
Workshop on Innovative,  
Robust and Affordable  
Medical Linear Accelerators  
for Challenging Environments**

**Report of Contributions**

Contribution ID: **80**

Type: **not specified**

# Welcome, Introduction and Logistics

**Presenter:** JAMIESON, Charlotte

**Session Classification:** Session VIII

Contribution ID: **81**

Type: **not specified**

## **Brief Summary of CERN-hosted Workshop in November 2016**

*Thursday, 26 October 2017 08:50 (10 minutes)*

November 2016: “Design Characteristics of a Novel Linear Accelerator for Challenging Environments”

**Presenter:** DOSANJH, Manjit (CERN)

**Session Classification:** Session I

Contribution ID: **82**

Type: **not specified**

## **Goals and Objectives of this Workshop**

*Thursday, 26 October 2017 08:40 (10 minutes)*

**Presenter:** COLEMAN, C. Norman (National Cancer Institute)

**Session Classification:** Session I

Contribution ID: 83

Type: **not specified**

## **The Cancer Scene in ODA Countries –Cancer Burden vs Resources - Ghana**

*Thursday, 26 October 2017 09:00 (10 minutes)*

**Presenter:** AMANKWAA-FREMPONG, Emmanuel

**Session Classification:** Session I

Contribution ID: 84

Type: **not specified**

# **Clinical Challenges in the Treatment of Patients with Cancer in Developing Countries**

*Thursday, 26 October 2017 10:45 (15 minutes)*

**Presenter:** GROVER, Surbhi

**Session Classification:** Session II

Contribution ID: 85

Type: **not specified**

## Open Discussion

*Thursday, 26 October 2017 09:55 (20 minutes)*

**Presenters:** COLEMAN, C. Norman (National Cancer Institute); JAMIESON, Charlotte; DOSANJH, Manjit (CERN)

**Session Classification:** Session I

Contribution ID: **86**

Type: **not specified**

# **The Modern Technology of Radiation Oncology**

*Thursday, 26 October 2017 11:00 (15 minutes)*

**Presenter:** VAN DYK, Jake

**Session Classification:** Session II



Contribution ID: **88**

Type: **not specified**

## **Shortfalls of Current Radiation Therapy Technology in Developing Countries and Opportunities to Overcome the Shortfalls**

*Thursday, 26 October 2017 11:15 (30 minutes)*

**Presenter:** JAFFRAY, David

**Session Classification:** Session II

Contribution ID: **89**

Type: **not specified**

## Open Discussion

*Thursday, 26 October 2017 11:45 (45 minutes)*

**Presenters:** JAFFRAY, David; LIU, Paul

**Session Classification:** Session II

Contribution ID: 92

Type: **not specified**

## Open Discussion

*Thursday, 26 October 2017 15:20 (25 minutes)*

**Presenters:** SYRATCHEV, Igor (CERN); KONOPLEV, Ivan (University of Oxford); MCINTOSH, Peter

**Session Classification:** Session III

Contribution ID: 96

Type: **not specified**

## Open Discussion

*Thursday, 26 October 2017 17:10 (35 minutes)*

**Presenters:** KONOPLEV, Ivan (University of Oxford); MCINTOSH, Peter

**Session Classification:** Session IV

Contribution ID: 97

Type: **not specified**

## **Beam Quality –Scatters and Collimator Systems**

*Friday, 27 October 2017 08:40 (15 minutes)*

**Presenter:** PALTA, Jatinder

**Session Classification:** Session V

Contribution ID: 99

Type: **not specified**

## **Electron Beam Generation and Collection**

*Friday, 27 October 2017 09:10 (15 minutes)*

**Presenter:** MILITSYN, Boris (STFC)

**Session Classification:** Session V

Contribution ID: **100**

Type: **not specified**

## **Beam Delivery Options Including Beam Rastering and Scanning**

*Friday, 27 October 2017 09:25 (15 minutes)*

**Presenter:** Dr SHEEHY, Suzie (University of Oxford and STFC/ASTeC/RAL)

**Session Classification:** Session V

Contribution ID: **102**

Type: **not specified**

## **Open Discussion Including Subsystems (targets, magnets and their power supplies, vacuum, diagnostics)**

*Friday, 27 October 2017 09:40 (35 minutes)*

**Session Classification:** Session V



Contribution ID: **107**

Type: **not specified**

## **Introduction and goals of the Session**

*Friday, 27 October 2017 10:45 (20 minutes)*

**Presenter:** BOOGERT, Stewart Takashi (Royal Holloway, University of London)

**Session Classification:** Session VI

Contribution ID: **108**

Type: **not specified**

# **Automated Treatment Planning Systems**

*Friday, 27 October 2017 13:45 (20 minutes)*

**Presenter:** COURT, Laurence

**Session Classification:** Session VII

Contribution ID: **109**

Type: **not specified**

# **Automated Monitoring of Treatment Delivery**

*Friday, 27 October 2017 14:05 (20 minutes)*

**Presenter:** PALTA, Jatinder

**Session Classification:** Session VII

Contribution ID: **110**

Type: **not specified**

## **Teaching linear accelerator physics using simulation software**

*Friday, 27 October 2017 14:25 (20 minutes)*

**Presenter:** CARLONE, Marco

**Session Classification:** Session VII

Contribution ID: **111**

Type: **not specified**

## Open Discussion

*Friday, 27 October 2017 15:00 (30 minutes)*

**Presenters:** PISTENMAA, David (ICEC); Mr VAN DYK, Jake

**Session Classification:** Session VII

Contribution ID: 112

Type: **not specified**

## **Summary of sessions and preliminary ideas to develop for R&D projects**

*Friday, 27 October 2017 16:00 (1 hour)*

Summaries from Session 2 - 7 (10min each)

**Session Classification:** Session VIII

Contribution ID: **114**

Type: **not specified**

## **Discuss Next Steps**

*Friday, 27 October 2017 17:00 (20 minutes)*

**Presenters:** JAMIESON, Charlotte; JAFFRAY, David

**Session Classification:** Session VIII

Contribution ID: 115

Type: **not specified**

## **Develop Timeline for Next Steps**

*Friday, 27 October 2017 17:20 (20 minutes)*

**Session Classification:** Session VIII



Contribution ID: **116**

Type: **not specified**

## **Thank you by co-conveners**

*Friday, 27 October 2017 17:40 (5 minutes)*

**Session Classification:** Session VIII

Contribution ID: 117

Type: **not specified**

## **Preliminary Report: 2017 IAEA Radiation Therapy Survey**

*Thursday, 26 October 2017 09:50 (5 minutes)*

**Presenter:** ZUBIZARRETA, Zubi

**Session Classification:** Session I

Contribution ID: **118**

Type: **not specified**

## **Introduction and Goals of the sessions**

*Thursday, 26 October 2017 13:45 (15 minutes)*

**Presenters:** KONOPLEV, Ivan (University of Oxford); MCINTOSH, Peter

**Session Classification:** Session III

Contribution ID: **119**

Type: **not specified**

## **Important Accelerator Parameters**

*Thursday, 26 October 2017 14:00 (1 hour)*

**Presenters:** KONOPLEV, Ivan (University of Oxford); MCINTOSH, Peter

**Session Classification:** Session III

Contribution ID: 120

Type: **not specified**

## **Accelerator Technologies (Pro's/Con's)**

*Thursday, 26 October 2017 15:00 (20 minutes)*

**Presenters:** KONOPLEV, Ivan (University of Oxford); MCINTOSH, Peter

**Session Classification:** Session III

Contribution ID: 121

Type: **not specified**

## **Efficiency, Cooling, Controls, Stability, Modularity, Servicing**

*Thursday, 26 October 2017 16:30 (20 minutes)*

**Presenters:** KONOPLEV, Ivan (University of Oxford); MCINTOSH, Peter (STFC)

**Session Classification:** Session IV

Contribution ID: 122

Type: **not specified**

## Costs (Discussion)

*Thursday, 26 October 2017 16:50 (20 minutes)*

**Presenters:** KONOPLEV, Ivan (University of Oxford); MCINTOSH, Peter

**Session Classification:** Session IV

Contribution ID: 123

Type: **not specified**

## Introduction and goals of the Session

*Friday, 27 October 2017 08:30 (10 minutes)*

**Presenter:** ANGAL-KALININ, Deepa (Daresbury Laboratory)

**Session Classification:** Session V



Contribution ID: 124

Type: **not specified**

## Source Technologies and Magnets

*Friday, 27 October 2017 08:55 (15 minutes)*

**Presenter:** CARLONE, Marco

**Session Classification:** Session V

Contribution ID: 125

Type: **not specified**

## Discussion

*Friday, 27 October 2017 11:05 (1h 25m)*

- a) Integrated Safety and QA Subsystems: Includes Ion Chambers, Self-Monitoring, Patient-specific QA
- b) Simplified Control and Remote Diagnostics
- c) Integrated Shielding; Low Leakage Systems
- d) Compactness, Operability and Maintenance (gantry systems and patient positioning)

**Presenter:** BOOGERT, Stewart Takashi (Royal Holloway, University of London)

**Session Classification:** Session VI

Contribution ID: 126

Type: **not specified**

## RT Technology Operation Experience

*Thursday, 26 October 2017 16:15 (15 minutes)*

**Presenter:** Mr VAN DYK, Jake

**Session Classification:** Session IV

Contribution ID: 127

Type: **not specified**

## **The Cancer Scene in ODA Countries –Cancer Burden vs Resources - Nigeria**

*Thursday, 26 October 2017 09:20 (10 minutes)*

**Presenter:** ARUAH, Simeon Chinedu

**Session Classification:** Session I

Contribution ID: 128

Type: **not specified**

## **The Cancer Scene in ODA Countries –Cancer Burden vs Resources - Jordan**

*Thursday, 26 October 2017 09:10 (10 minutes)*

**Presenter:** KHADER, Jamal

**Session Classification:** Session I

Contribution ID: 129

Type: **not specified**

## **The Cancer Scene in ODA Countries –Cancer Burden vs Resources - Tanzania**

*Thursday, 26 October 2017 09:30 (10 minutes)*

**Presenter:** MAKWANI, Hellen

**Session Classification:** Session I

Contribution ID: 130

Type: **not specified**

## **The Cancer Scene in ODA Countries –Cancer Burden vs Resources - Zambia**

*Thursday, 26 October 2017 09:40 (10 minutes)*

**Presenter:** ZUBIZARRETA, Zubi

**Session Classification:** Session I

Contribution ID: 131

Type: **not specified**

## Computing for Medical Applications

*Friday, 27 October 2017 14:45 (15 minutes)*

CERN openlab

**Presenter:** DI MEGLIO, Alberto (CERN)

**Session Classification:** Session VII