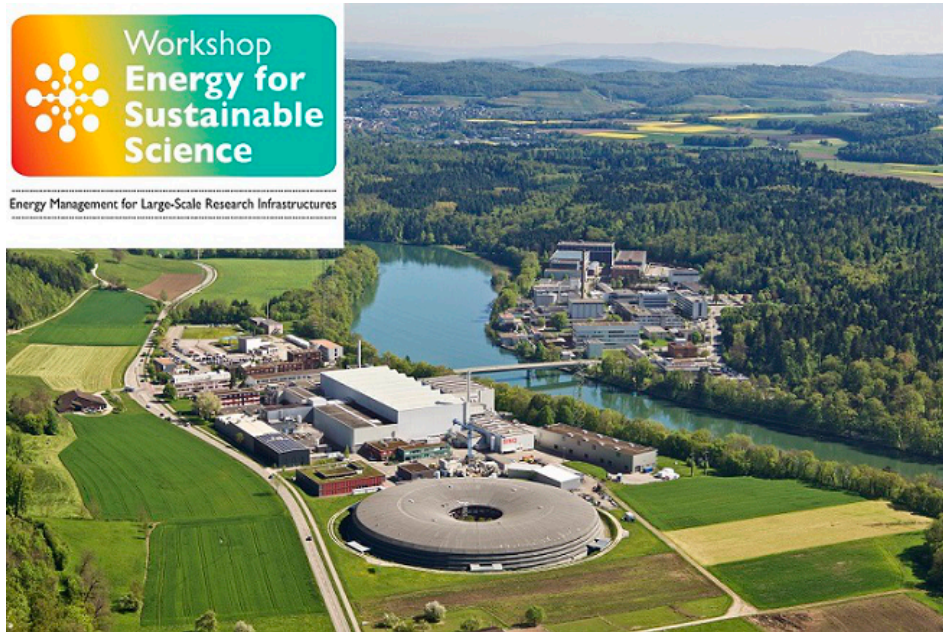


# 5th Workshop Energy for Sustainable Science at Research Infrastructures



## Report of Contributions

Contribution ID: 1

Type: **not specified**

## Welcome

*Thursday, November 28, 2019 9:00 AM (10 minutes)*

**Primary author:** STRÄSSLE, Thierry (Paul Scherrer Institut)

**Presenter:** STRÄSSLE, Thierry (Paul Scherrer Institut)

**Session Classification:** Thursday, 28 November 2019

Contribution ID: 2

Type: **not specified**

# **The Swiss energy strategy 2050 and energy research landscape**

*Thursday, November 28, 2019 9:30 AM (30 minutes)*

## **Summary**

**Primary author:** OBERHOLZER, Stefan (Swiss Federal Office of Energy)

**Presenter:** OBERHOLZER, Stefan (Swiss Federal Office of Energy)

**Session Classification:** Thursday, 28 November 2019

Contribution ID: 4

Type: **not specified**

## **Sustainability considerations of present and future accelerators and infrastructures at DESY**

*Thursday, November 28, 2019 12:30 PM (30 minutes)*

**Presenter:** LEEMANS, Wim (DESY)

**Session Classification:** Thursday, 28 November 2019

Contribution ID: 5

Type: **not specified**

## **Application of fuel cells for UPS**

*Thursday, November 28, 2019 3:20 PM (25 minutes)*

**Presenter:** BUECHI, Felix (Paul Scherrer Institut)

**Session Classification:** Thursday, 28 November 2019

Contribution ID: 6

Type: **not specified**

## **District heating and use of waste heat recovery at the ESS**

*Thursday, November 28, 2019 3:45 PM (25 minutes)*

**Presenter:** STRÖMBERG, Sonny (E.ON)

**Session Classification:** Thursday, 28 November 2019

Contribution ID: 7

Type: **not specified**

## **Low Loss S.C. Cavities**

*Thursday, November 28, 2019 5:30 PM (25 minutes)*

**Primary author:** GERIGK, Frank (CERN)

**Presenter:** GERIGK, Frank (CERN)

**Session Classification:** Thursday, 28 November 2019

Contribution ID: 8

Type: **not specified**

## **MgB2 based Power Transmission Lines for the powering of the HL-LHC Superconducting Magnets**

*Thursday, November 28, 2019 5:55 PM (25 minutes)*

**Primary author:** Dr BALLARINO, Amalia (CERN)

**Presenter:** Dr BALLARINO, Amalia (CERN)

**Session Classification:** Thursday, 28 November 2019



Contribution ID: 9

Type: **not specified**

## **Permanent accelerator magnets for light sources**

*Friday, November 29, 2019 9:20 AM (25 minutes)*

### **Summary**

**Presenter:** CHAVANNE, Joel (ESRF)

**Session Classification:** Friday, 29 November 2019

Contribution ID: **10**

Type: **not specified**

## **Energy consumption considerations in the beam physics design and optimisation of the ESS linac**

*Thursday, November 28, 2019 5:05 PM (25 minutes)*

**Presenter:** ESHRAQI, Mamad (ESS - European Spallation Source (SE))

**Session Classification:** Thursday, 28 November 2019

Contribution ID: 11

Type: **not specified**

## **District heating and use of waste heat recovery at the ESS**

**Presenter:** STRÖMBERG, Sonny (E.ON)

**Session Classification:** Thursday, 28 November 2019

Contribution ID: 12

Type: **not specified**

## **Energy Management at ALBA**

*Thursday, November 28, 2019 5:30 PM (25 minutes)*

**Presenter:** CASAS, Joan (ALBA Synchrotron)

**Session Classification:** Thursday, 28 November 2019

Contribution ID: 13

Type: **not specified**

## **Status of high efficient RF power sources - Outcome of Uppsala Workshop**

*Friday, November 29, 2019 8:30 AM (25 minutes)*

**Presenter:** RUBER, Roger (Uppsala University)

**Session Classification:** Friday, 29 November 2019

Contribution ID: 14

Type: **not specified**

## **Technology and Economics of He Refrigeration Using the Example of ESS**

*Friday, November 29, 2019 8:30 AM (25 minutes)*

**Primary author:** Dr WEISEND, John (ESS)

**Presenter:** Dr WEISEND, John (ESS)

**Session Classification:** Friday, 29 November 2019

Contribution ID: 15

Type: **not specified**

## **Introduction to Workshop & Goals**

*Thursday, November 28, 2019 9:10 AM (20 minutes)*

**Presenter:** Dr BORDRY, Frédéric (CERN)

**Session Classification:** Thursday, 28 November 2019

Contribution ID: 16

Type: **not specified**

## **Research on Sustainable Energy at PSI**

*Thursday, November 28, 2019 10:00 AM (30 minutes)*

**Presenter:** SCHMIDT, Thomas Justus (Paul Scherrer Institut)

**Session Classification:** Thursday, 28 November 2019



Contribution ID: 17

Type: **not specified**

## Large Systems Energy Storage

*Thursday, November 28, 2019 11:00 AM (30 minutes)*

**Presenter:** Prof. DÜREN, Michael (Univ. Giessen)

**Session Classification:** Thursday, 28 November 2019

Contribution ID: 18

Type: **not specified**

## **Realisation of a New Research Infrastructure in Belgium: MYRRHA**

*Thursday, November 28, 2019 12:00 PM (30 minutes)*

**Presenter:** VAN DER BORGHT, Olivier (SCK-CEN)

**Session Classification:** Thursday, 28 November 2019

Contribution ID: 19

Type: **not specified**

## **Efficient infrastructure to run supercomputers and how the lesson learned can be applied to other scientific instruments**

*Thursday, November 28, 2019 11:30 AM (30 minutes)*

**Presenter:** GILLY, Ladina (ETH Zurich)

**Session Classification:** Thursday, 28 November 2019

Contribution ID: 20

Type: **not specified**

## **Study of Surface effects in s.c. accelerator cavities using Muon spectroscopy**

*Thursday, November 28, 2019 2:30 PM (25 minutes)*

**Presenter:** SUTER, Andreas (Paul Scherrer Institut)

**Session Classification:** Thursday, 28 November 2019

Contribution ID: 21

Type: **not specified**

## **Increasing the Energy Efficiency of Particle Accelerators by Using Superconducting Radio Frequency Niobium-3 Tin Cavities**

*Thursday, November 28, 2019 2:55 PM (25 minutes)*

**Presenter:** PORTER, Ryan (Uni Cornell)

**Session Classification:** Thursday, 28 November 2019

Contribution ID: 22

Type: **not specified**

## **Shining X-rays on a reactor: a necessary step to rationally design or optimize (electro-)catalysts**

*Thursday, November 28, 2019 3:45 PM (25 minutes)*

**Presenter:** NACHTEGAAL, Maarten (Paul Scherrer Institut)

**Session Classification:** Thursday, 28 November 2019

Contribution ID: 23

Type: **not specified**

## **Efficiency Considerations of Solid State Pulse Modulators**

*Thursday, November 28, 2019 4:40 PM (25 minutes)*

**Presenter:** Prof. BIELA, Jürgen (ETH Zurich)

**Session Classification:** Thursday, 28 November 2019

Contribution ID: 24

Type: **not specified**

## **Energy management for national high magnetic field facility in Grenoble**

*Thursday, November 28, 2019 5:05 PM (25 minutes)*

**Presenter:** DEBRAY, François (CNRS LNCMI)

**Session Classification:** Thursday, 28 November 2019



Contribution ID: 26

Type: **not specified**

## **Energy monitoring and heat recovery at DESY**

*Thursday, November 28, 2019 4:40 PM (25 minutes)*

**Presenter:** JENSEN, Jens-Peter (DESY)

**Session Classification:** Thursday, 28 November 2019

Contribution ID: 27

Type: **not specified**

## **Challenges of a megawatt CW class solid state power amplifier for the SPS at CERN**

*Friday, November 29, 2019 8:55 AM (25 minutes)*

**Presenter:** MONTESINOS, Eric (CERN)

**Session Classification:** Friday, 29 November 2019

Contribution ID: 28

Type: **not specified**

## **High current pulsed magnets for energy efficient beam transport systems**

*Friday, November 29, 2019 9:45 AM (25 minutes)*

**Presenter:** Dr SPILLER, Peter (GSI)

**Session Classification:** Friday, 29 November 2019

Contribution ID: 29

Type: **not specified**

## **Energy Efficient helium-neon Refrigeration for FCC**

*Friday, November 29, 2019 8:55 AM (25 minutes)*

**Presenter:** TAVIAN, Laurent

**Session Classification:** Friday, 29 November 2019

Contribution ID: **30**

Type: **not specified**

## **Recent studies on water consumption and improvements on cooling towers effluents**

*Friday, November 29, 2019 9:20 AM (25 minutes)*

**Presenter:** Dr DELEVAL, Serge (CERN)

**Session Classification:** Friday, 29 November 2019

Contribution ID: 31

Type: **not specified**

## **Efficiency versus sobriety: optimized cryogenic design of stand-alone superconducting magnets**

*Friday, November 29, 2019 9:45 AM (25 minutes)*

**Presenter:** Dr LEBRUN, Philippe (CERN)

**Session Classification:** Friday, 29 November 2019

Contribution ID: 32

Type: **not specified**

## Ecological Diversity

*Friday, November 29, 2019 11:10 AM (30 minutes)*

**Presenter:** WELANDER, Thérèse (ESS)

**Session Classification:** Friday, 29 November 2019

Contribution ID: 33

Type: **not specified**

## **Energy Consumption and Sustainability of Operations at the Extreme Light Infrastructure**

*Thursday, November 28, 2019 2:55 PM (25 minutes)*

**Presenter:** Mr WEEKS, Allen (ELI Delivery Consortium)

**Session Classification:** Thursday, 28 November 2019



Contribution ID: 35

Type: **not specified**

## **Compact Accelerator driven Neutron Source in European Landscape: Efficiency and sustainability aspects**

*Thursday, November 28, 2019 2:30 PM (25 minutes)*

**Presenter:** Dr SORDO BALBIN, Fernando (ESS Bilbao)

**Session Classification:** Thursday, 28 November 2019

Contribution ID: 36

Type: **not specified**

## **Reducing Energy Costs and Environmental Impacts for Research Infrastructures - The SKA Case Study**

*Thursday, November 28, 2019 3:20 PM (25 minutes)*

### **Summary**

**Presenter:** SCHUTTE, Adrian (Jodrell Bank Observatory)

**Session Classification:** Thursday, 28 November 2019

Contribution ID: 37

Type: **not specified**

## **Lifecycle Assessment: Usefulness for and Applicability to Research Infrastructures**

*Friday, November 29, 2019 10:40 AM (30 minutes)*

**Presenter:** MARGNI, Manuele (Polytechnique Montréal)

**Session Classification:** Friday, 29 November 2019

Contribution ID: **38**

Type: **not specified**

## Summary Research

*Friday, November 29, 2019 11:40 AM (15 minutes)*

**Presenter:** WEEKS, Allen

**Session Classification:** Friday, 29 November 2019

Contribution ID: 39

Type: **not specified**

## Summary Energy Management

*Friday, November 29, 2019 11:55 AM (15 minutes)*

**Presenter:** BOCCHETTA, Carlo (European Spallation Source ERIC)

**Session Classification:** Friday, 29 November 2019

Contribution ID: 40

Type: **not specified**

## Summary Energy Efficient Technology

*Friday, November 29, 2019 12:10 PM (15 minutes)*

**Presenter:** LEHNER, Frank (DESY)

**Session Classification:** Friday, 29 November 2019

Contribution ID: 41

Type: **not specified**

## **Summary Cryogenic systems and conventional cooling**

*Friday, November 29, 2019 12:25 PM (15 minutes)*

**Presenter:** CLAUDET, Serge (CERN)

**Session Classification:** Friday, 29 November 2019

Contribution ID: 42

Type: **not specified**

## Closing Remarks

*Friday, November 29, 2019 12:40 PM (20 minutes)*

**Presenter:** SEIDEL, Mike (Paul Scherrer Institut)

**Session Classification:** Friday, 29 November 2019



Contribution ID: 43

Type: **not specified**

## Information

**Presenter:** SEIDEL, Mike (Paul Scherrer Institut)

Contribution ID: 44

Type: **not specified**

## Information

*Thursday, November 28, 2019 1:00 PM (5 minutes)*

**Presenter:** SEIDEL, Mike (Paul Scherrer Institut)

**Session Classification:** Thursday, 28 November 2019

Contribution ID: 45

Type: **not specified**

## Closeout

*Thursday, November 28, 2019 6:00 PM (40 minutes)*

**Session Classification:** Thursday, 28 November 2019

Contribution ID: 46

Type: **not specified**

## Closeout

*Thursday, November 28, 2019 6:20 PM (20 minutes)*

**Session Classification:** Thursday, 28 November 2019