

SECOND CALL FOR ABSTRACTS

ECD 2017 & 2nd IWC-HTS, September 13 -15, 2017, Karlsruhe, Germany

Abstract submission deadline extended until May 31, 2017

On behalf of the Cryogenics Society of Europe (CSE) and the European Society on Applied Superconductivity (ESAS), we are welcoming you to join the

European Cryogenics Days 2017 and the 2nd International Workshop on Cooling Systems for HTS Applications (IWC-HTS)

The 2nd International Workshop on Cooling Systems for HTS Applications is organised in conjunction with the European Cryogenics Days 2017 in Karlsruhe, Germany, on September 13-15, 2017. This meeting is preceding the European Conference on Applied Superconductivity (EUCAS) taking place at CERN, Geneva, September 17-21.

The workshop is a follow-up of the [1st IWC-HTS](#) held in October 2015 in Matsue, Japan. Its purpose is the effective exchange of up-to-date information on cryocooler and cryoplant developments for HTS applications, as well as state-of-the-art methods for the optimal integration of HTS applications and cooling systems.

Presentations and posters will be made available online. Proceedings will not be produced and therefore, no papers are expected to be submitted by the speakers.

Please take a look at the **Preliminary Technical Program** on the following pages and refer to our website on <http://www.ecd-iwchts2017.kit.edu> for further information.

We sincerely look forward to welcoming you to Karlsruhe!

Steffen Grohmann, Marcel ter Brake and Bernhard Holzapfel
On behalf of the organising team

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Preliminary Technical Program

European Cryogenics Days – Wednesday, September 13, 2017

In the morning, we will start with the *General Meeting* of the *Cryogenics Society of Europe* (CSE). This meeting will be open to all attendees, although voting will be for CSE members only.

Following the CSE General meeting, we will have a series of presentations that are relevant to the cryogenic community. The following speakers have already confirmed their contribution:

Speaker	Affiliation	Title
Lionel Duband	CEA (F)	Sub-K cooling for space and ground-based telescopes
Mykhaylo Filipenko	Siemens (D)	Towards hybrid electric aircraft – killer application for HTS technology?
Hans Hilgenkamp	Univ. Twente (NL)	Superconducting Supercomputers and Quantum Computing
Gerd Jakob	ESO (D)	Cryogenics at the Extremely Large Telescope (ELT)
David Montanari	CERN (CH)	Long-Baseline Neutrino Facility (LBNF)
Mathias Noe	KIT (D)	Cooling requirements for superconducting power cables
Laurent Taviani	CERN (CH)	The FCC project and its cryogenic challenges
Adrian Zenklusen	Linde (CH)	ESS target moderator cryogenic plant process design

In addition we intend to cover the following topics of which speakers still have to confirm:

Speaker	Affiliation	Title
tbd.		Review and update on MAGLEV
tbd.		Visualisation of heat transfer in LN2

In between the sessions, we will have ample opportunity for interaction. Apart from coffee and lunch break, an interaction break of at least one hour will be scheduled in the afternoon.

This day will be closed by a Exhibitors Reception in the evening.

[Continue](#) to the Preliminary Technical Program of Day 2 and 3

Preliminary Technical Program (continued...)

2nd International Workshop on Cooling Systems for HTS Applications Thursday–Friday, September 14–15, 2017

In the workshop, we will have 5 plenary oral sessions, each starting with an invited talk followed by other contributed talks on the session topic. The **deadline** for submitting abstracts is **extended to May 31**.

Session 4		Power Grid Applications
Session Chair	Mathias Noe (KIT)	
Invited talk	Friedhelm Herzog (Messer, D)	Liquid nitrogen operated cooling systems for superconducting power lines
Plus about 4 contributed talks		

Session 5		Novel Machinery
Session Chair	A.T.A.M. de Waele (TU Eindhoven)	
Invited talk	tbd.	
Plus about 4 contributed talks		

Session 6		Small-scale Applications
Session Chair	Marcel ter Brake (Univ. Twente)	
Invited talk	Cathy Foley, CSIRO (AU)	HTS SQUID systems for mineral prospecting
Plus about 4 contributed talks		

Poster Session	
The poster session is open for all session topics. Students presenting their work in the poster session are eligible to reduced participation fees.	

Session 7		Systems and Solutions
Session Chair	tbd.	
Invited talk	Christopher Boyle (Fabrum, NZ)	Commercial cryocoolers for use in HTS applications
Plus about 4 contributed talks		

Session 8		Heat Transfer and Modelling
Session Chair	Alain Girard (CEA, tbc.)	
Invited talk	John Pfothenhauer (Univ. Wisconsin, US)	Pulsating heat pipes
Plus about 4 contributed talks		

On Thursday evening, we will have a workshop dinner for all attendees and on the Friday afternoon a technical visit to KIT will be organised.