EMSE Research Chair Energy, Materials and Systems **ITS** Special Research Chair on Industrial Application of Superconductivity Super ACT Foundation Superconductivity and Advanced Cryogenic Technology

Program Yearly Symposium on Superconductivity & Cryogenics

Organized by: - Chair Energy, Materials and Systems -- Chair Industrial Applications of Superconductivity with support of Foundation SuperACT

Thursday 2 December 2021, University of Twente, Building 45 'U-Parkhotel' on the campus map, room C1&2

09:30 - Welcome with Coffee, Tea and Cakes

- 1. 10:00 Sc Magnet for Magnetic Density Separation, Goncalo Santos Tomas / Uni. of Twente (15+5m)
- 2. 10:20 Vibration free cooling in Big Science projects like ET & LGWA, Marcel ter Brake / Uni. of Twente (15+5m)
- 3. 10:40 Pitches on Cryogenics & Vibration Free Cooling in 3 x 7 minutes!
 - 10:40 Sorption-based cryo chain for Einstein Telescope Pathfinder, Arvi Xhahi / Uni. of Twente (5+2m)
 - 10:47 Vibration-free set-up for ET mirror coating development, *Koen Lotze / Uni. of Twente* (5+2*m*)
 - 11:54 Applications of gas mixtures on sorption-based coolers, Nando Tolboom / Uni. of Twente (5+2m)

11:01 – Coffee & Tea break (29m)

- 4. 11:30 Towards Industrial Application of Superconducting Actuators, Matthijs Neut / VDL-ETG (15+5)
- 5. 11:50 AC Loss in ReBCO racetrack coils for sc linear motors, Jeroen ter Harmsel / Uni. of Twente (15+5m)
- 6. 12:10 ReBCO magnets for Compact Fusion at Tokamak Energy, Bas van Nugteren / Tokamak Energy (15+5m)

12:25 – Lunch (70m)

- 7. 13:40 Advances in Twente Cryogenic Boiling research, Srini Vanapalli / Uni. Of Twente (15+5m)
- 8. 14:00 Pitches on Applied Thermal Science projects in 4 x 7 minutes!
 - 14:00 Liquid nitrogen droplets dynamics on a water pool, Markus Schremb / Uni. of Twente (5+2m)
 - 14:07 Leidenfrost dynamics, Abhishek Purandare / Uni. of Twente (5+2m)
 - 14:14 Cryogenic liquids in porous materials, Rick Spijkers / Uni. of Twente (5+2m)
 - 14:21 Direct contact freeze concentration, Zhuo Zhang/ Uni. of Twente (5+2)
- 9. 14:30 HFML 45T hybrid status and EMFL *Re*BCO coil R&D, *Andries den Ouden / HFML-Radboud Uni.* (15+5)
 14:50 Coffee & Tea break (30m)
- 10. 15:20 Advanced diagnostics of the performance of Nb₃Sn accelerator magnets, Ruben Keijzer / CERN (15+5m)
- 11. 15:40 BOX, a new benchmark facility for study of magnet training, Simon Otten / Uni. of Twente (15+5m)
- 12. 16:00 Superconducting Detector Magnet Development at CERN, Matthias Mentink / CERN (15+5m)
- 13. 16:20 SuperACT Service Center and its projects, Arend Nijhuis / Uni. of Twente (8+2m)

16:30 - Discussion while enjoying Drinks & Bites

17:30 - Closing & Departure - Tour of the laboratory for those interested.