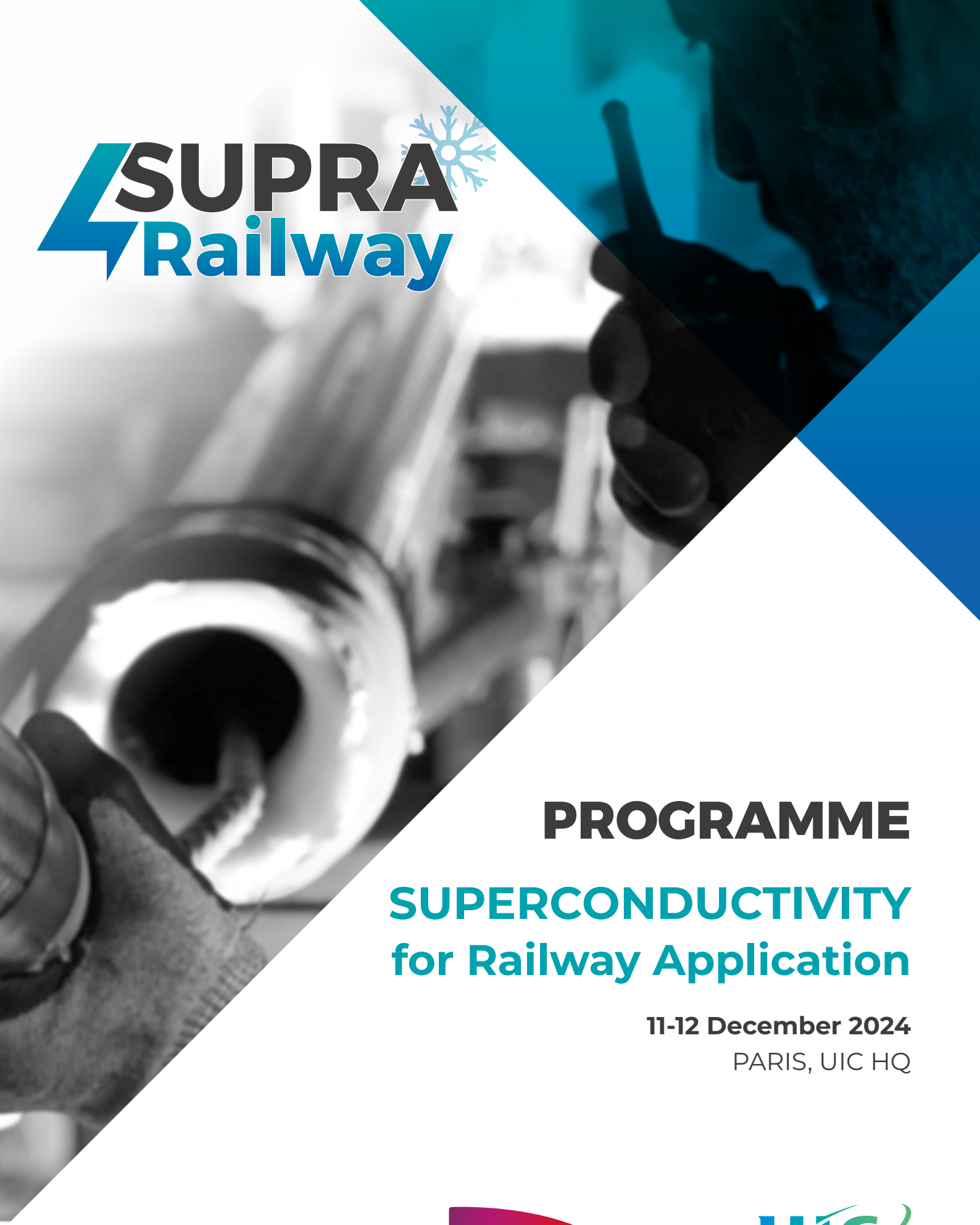

SUPRA Railway

PROGRAMME

SUPERCONDUCTIVITY for Railway Application

11-12 December 2024

PARIS, UIC HQ

SNCF RÉSEAU

UIC INTERNATIONAL UNION OF RAILWAYS

Introduction

Superconductor technology, once confined to research laboratories, is now making its way into the industrial sector.

Building on the success of these advancements, the rail industry is turning to this innovation to modernize its infrastructure. Europe is exploring new possibilities with cables and fault limiters, while Asia invests in futuristic rail vehicle projects. SNCF Réseau, at the forefront of this technological revolution, is financing key projects that are shaping the future of rail transport. The project SuperRail was funded by the government as part of France 2030.

Don't miss our inaugural workshop, where you'll discover three world-first railway projects where superconductivity plays a central role.

Join us to witness groundbreaking innovations that will redefine rail transport!

Agenda

DAY 1

- Welcome remarks
- Paving the way of high efficient railways networks with Superconducting cables
- Key note interview
- Networking Reception Drinks

DAY 2

- Welcome remarks
- Enhancing rail network reliability and safety with Superconducting Fault Current Limiters (sFCL)
- Japanese Maglev train: World's Fastest Bullet train
- HTS Advanced Conductors and wires: accelerators of the next generation of superconducting electric transmission lines

It's a free event, and registration can be done here:
HOME - Superconductivity for Railway Application Workshop (evenium.events)

For further information please contact:
hassoun@uic.org

International Union of Railways (UIC)
16, rue Jean Rey - 75015 Paris, France

Programme

Day 1 11 December 2024

9:00	**Registration and coffee reception**
9:30	**Plenary session**
	Welcome speech *UIC, F. Davenne* **Why innovation is a core element of SNCF Réseau strategic road map** *SNCF Réseau, M. Chabanel* **Industry perspective** *FIF, P. Jeantet* **Industrial outlook for all sectors** *Nexans, J. Fournier*
10:10	**Networking break**
10:30	**Session 1: Paving the way of high efficient railways networks with Superconducting cables**
	Overview of superconductor technology *Grenoble-INP, P. Tixador* **State-of-the-art cooling techniques** *Absolut System, J. Lacapère* **World's first: SuperRail, paving the way towards higher power availability at train stations** *SNCF Réseau, T. Joindot* **Presentation of the SuperRail project** *SNCF Réseau, H. Caron*
12:30	**Lunch break and discovery of the Innovation Hall**
13:45	**Session 2: Superconducting power Cables – Unlocking electricity potential**
	What tools and resources are needed to develop and study superconducting cables? *Université de Lorraine, K. Berger* **Superconducting cables activities in Japan** *RTRI, T. Masaru* **Accelerating the Energy Transition via High Temperature Superconducting Systems and projects** *Nexans, Y. Duclot*
15:25	**Session 3: Superconducting Fault Current limiter (SFCL) – Higher network reliability and safety**
	AC fault Current Limiter *Nexans, Y. Duclot* **Safe, DC Fault Current Limiter** *L2EP, K. Almaksour*
16:25	**Networking break**
16:45	**Key Note: Day's wrap-up discussion** **Sustainable development prospects for superconductivity** **Is climate change a factor in the acceleration of supra/cryo technology market adoption?** **How superconducting technology play a role in the energy transition?** *With SNCF & Airbus*
17:30	**Networking Cocktail reception**

Programme

Day 2 12 December 2024

8:00	**Welcome coffee**
8:30	**Session 4: High Temperature Superconducting wire**
	REBCO tape *Theva, A. Smara* **MgB2 + Scarlett** *ASG, C-E. Bruzek* **HTS Advanced Conductors and wires: accelerators of the next generation of superconducting electric transmission lines** *MeTox, J. Vitha & M. Hayden*
10:00	**Networking break**
10:20	**Session 5: Superconducting systems – Broadening railway applications**
	Superconducting traction substation *Centrale Supélec, L. Quéval* **MagLev in Japan** *University of Tokyo, H. Ohsaki*
11:30	**Round table: Keynotes of the event** **Superconductivity's impact on other industrial sectors** *With Safran, J. Labbé & Airbus, L. Ybanez & CEA, W. Abdelmaksoud (TBC) & Renaissance Fusion*
12:25	**Closing remarks**
12:30	**Networking Lunch break**

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