



FACULTÉ DES SCIENCES

Group of Applied Superconductivity Department of Quantum Matter Physics University of Geneva

Carmine SENATORE

FuSuMaTech Annual Meeting

14th December 2021



Ongoing activities at

- **Advanced LTS Nb₃Sn superconductors for next generation particle** colliders: wire R&D and investigations of the properties
- Effects of fast transient heating due to beam impact on the superconducting characteristics of LTS and HTS

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- Magnetic properties of superconducting materials for RF cavities
- **Applications of HTS REBCO coated conductors**
 - h2020 ARIES and - Towards 20 T accelerator magnets for HEP and superconducting gantries for hadron therapy
 - Towards 1.3+ GHz NMR spectrometers BRUKER (B = 30.5 T)
 - **Towards 40 T superconducting magnets in EU user facilities** for high-field science
 - Towards the integration of superconducting devices in the electric power infrastructure



Supe

Superconductivity



IFAST

coordinated by CERN

h2020

CA19108 HiSCALE Energy Agency

coordinated

Innosuisse - Swiss Innovation Agency

Confederazione Svizzera

Confederaziun svizra

Swiss participation in Horizon Europe

Switzerland is at the moment a non-associated third country for the submission of project proposals in Horizon Europe and other related programs and initiatives

This status applies to the now open calls in 2022 until further notice

As a non-associated third country, project participants based in Switzerland can still participate in the majority of collaborative projects

The Swiss project partner will not be funded by the Swiss State Secretariat for Education, Research and Innovation (SERI)