

GRAvitational-waves Science&technology Symposium (GRASS 2024)

lunedì 30 settembre 2024 - mercoledì 2 ottobre 2024

Programma scientifico

Coatings and Materials

Challenges in materials for ground and space-based GW detectors. Reflective Coatings (crystalline and amorphous) for cryogenic and high-power applications. Substrates for cryogenic operation.

Invited speaker: **François Schiettekatte** (Université de Montréal)
Title: *Material properties needed for the next generation mirrors*

Reduction of quantum noise in interferometric gravitational wave detectors

New ideas and challenges for quantum noise reduction. New approaches to quantum noise shaping.

Invited speaker: **Ray-Kuang Lee** (National Tsing Hua University)

Stray light mitigation

Straylight modelling, characterization and mitigation tools for ground and space based GW detectors.

Invited speaker: **Michel Lintz** (Observatoire de la Côte d'Azur)
Title: *Measurement and identification of coherent stray light in complex interferometers*

GW and multi-messenger observational science

Multi wavelength GW observations (PTA, LISA, ground based, ...) and multimessenger strategies.

Other challenges for future GW detectors

Issues and advances in GW physics or detection which doesn't explicitly fall within the scope of the other topical sessions.

Invited speaker: **Stefano Vitale** (Università di Trento)
Title: *Gravitational Wave space-based detectors in the post-LISA era*