

Machine Learning for Advanced Control Techniques

- Online workshop of g2net's Workgroup 3
- G2net COST action → <https://www.g2net.eu>
- Workshop page → <https://indico.ego-gw.it/event/172/>
- Program – all times CET
 - - Module 1 --> Monday 9-11:30
 - - Module 2 --> Monday 13-14:15
 - - Module 3 --> Monday 16-18
 - - Module 4 --> Tuesday 9-11:15
 - - Module 5 --> Tuesday 15-17
- Speakers
 - Diego Bersanetti
 - Francesca Badaracco
 - Rob Walet
 - Gabriele Vajente
 - Fiodor Sorrentino
 - Marco Cavaglia



G2NET

Monday March 22.3.2021 Programme

1. **Diego Bersanetti** --> Interferometer Cavities: locking strategies and improvement possibilities

- Diego's talk: [9:15-10](#)
- coffee break: [10-10:30](#)
- Roundtable discussion on ML for cavity locking, led by Diego: [10:30-11:30](#)

2. Workshop contributions

- Surrogate Wiener filtering for the prediction and optimised cancellation of Newtonian noise at Virgo --> **Francesca Badaracco**: [13-13:30](#)
- The experiment of the table top interferometer --> **Rob Walet**: [13:30-14:15](#)

3. **Gabriele Vajente** --> Non stationary noise removal from LIGO data

- Gabriele's talk: [16-16:45](#)
- coffee break: [16:45-17](#)
- Roundtable discussion on ML for noise removal, led by Gabriele: [17-18](#)



LIGO2NET

Tuesday March 23.3.2021 Programme



1. **Fiodor Sorrentino** --> Squeezed light benches and optical alignment issues

- Fiodor's talk: [9-9:45](#)
- coffee break: [9:45-10:15](#)
- Roundtable discussion on ML for squeezed light benches, led by Fiodor: [10:15-11:15](#)

2. **Marco Cavaglia** --> Glitch removal in ground-based gravitational-wave interferometric detectors

- Marco's talk: [15-15:45](#)
- coffee break: [15:45-16](#)
- Roundtable discussion on ML for glitch removal, led by Marco: [16-17](#)

3. **Closing words**: [17-17:15](#)

- Training school in June 2021



LG2NET