



COST ACTION CA17137
A NETWORK FOR GRAVITATIONAL
WAVES, GEOPHYSICS AND
MACHINE LEARNING

Communication

Isabel Cordero-Carrión
(Science Communication Manager)

on behalf of the Core Group

CA17137 - 5th MC virtual meeting

Web page (regularly updated)

27 COST Participation Countries
+ 2 COST International Partner Countries

Meetings including conferences, schools and webinars.

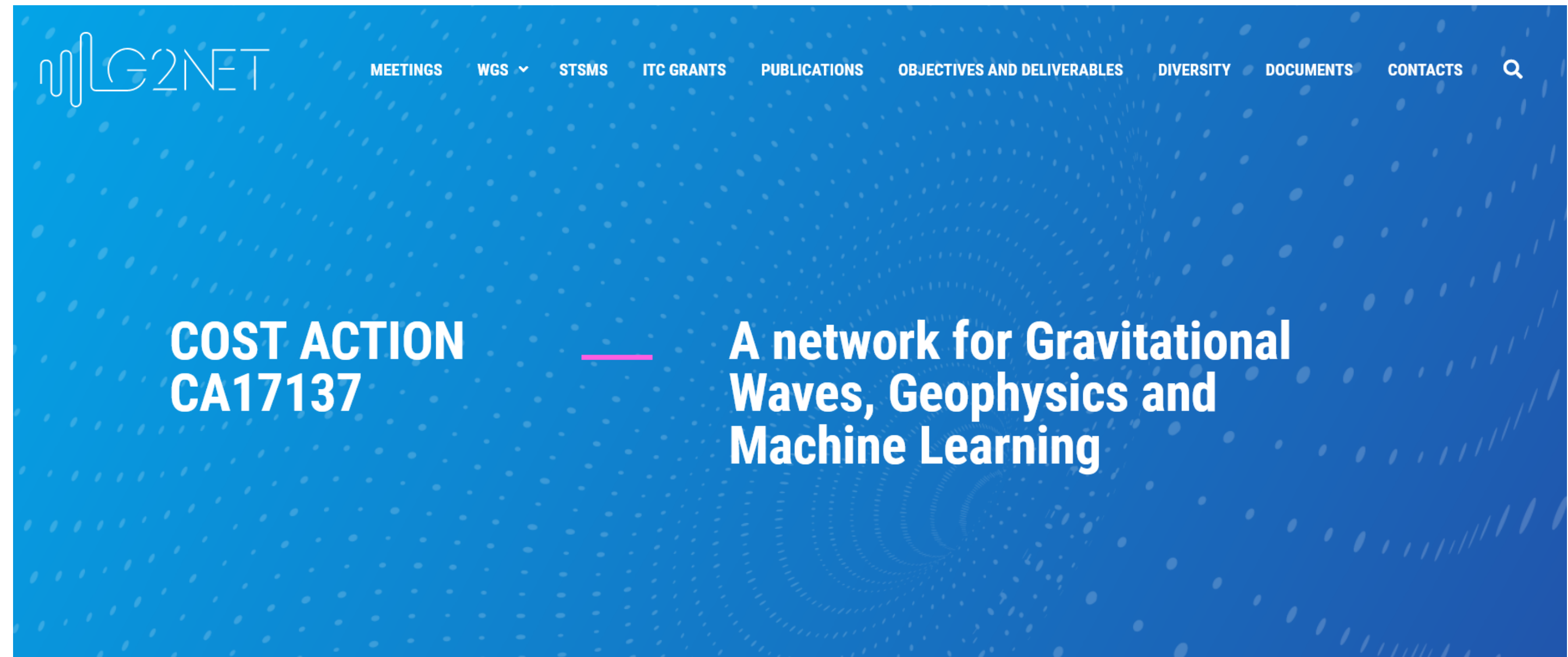
Dedicated pages for each of the 3 WGs.

STSMS: 8 + 8 approved applications in 1st + 2nd GP. Statistical info about them. 3rd call open!

ITC Grants: Cancellation of conferences due to pandemic has strongly affected this tool...

Publications: talks, posters, PhD thesis, scientific articles... with regular update (thanks Elena Gutuleac for support in this task); info about acknowledgement to COST Action fully described.

Diversity: contact to Diversity Advisor; Code of Conduct; webinar about Gender Issues; more webinars for the near future.



Web page (regularly updated)

27 COST Participation Countries
+ 2 COST International Partner Countries

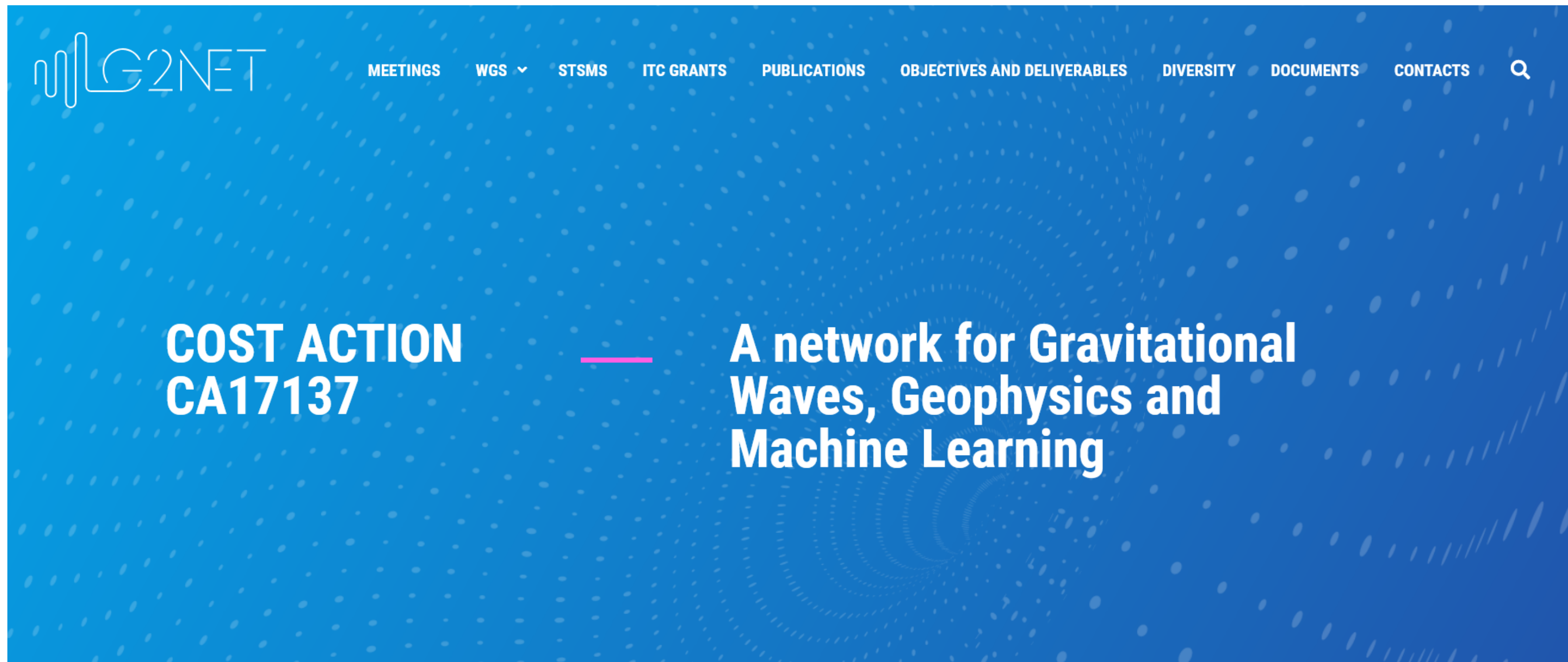
Objectives and deliverables: material supporting
report of the WBP.

COST Vademecum.

Contacts: info about core-group G2net
members. New coordinators of WGs.

New item: **Virtual Networking Tool (VNT) Grants:**

- (i) Virtual Mobility Grants
- (ii) Virtual Networking Support.



In general, more **input** of G2net activities is very welcome!

Social networks

Facebook: G2NET

Twitter: @g2_net

Similar publications.

Follow us!!



G2NET @g2_net · 31 ago.

Congratulations to all the authors!!!! 🎉🎉🎉🎉

Machine Learning: Science and Technology @MLSTjou... · 31 ago.

Yet another milestone: 'Enhancing #gravitationalwave science with #machinelearning' by @ElenaCuoco @JadePowell12 @Alberto_less @filipmor92 @gw_hunter @l_haegel et al @LIGO @ego_virgo @maxplanckpress @g2_net hits 4000 downloads! bit.ly/33zHOo8 #astrophysics #cosmology

MACHINE LEARNING
Science and Technology

CrossMark

OPEN ACCESS

RECEIVED
7 May 2020

REVISED
31 July 2020

ACCEPTED FOR PUBLICATION
16 September 2020

PUBLISHED
1 December 2020

Original Content from this work may be used under the terms of the [Creative Commons Attribution 4.0 licence](#). Any further distribution of this work must maintain attribution to the author(s) and the title

TOPICAL REVIEW

Enhancing gravitational-wave science with machine learning

Elena Cuoco^{1,2,3}, Jade Powell⁴, Marco Cavaglia⁵, Kendall Ackley^{6,7}, Michał Bejger⁸, Chayan Chatterjee⁹, Michael Coughlin^{10,11}, Scott Coughlin¹², Paul Easter^{6,7}, Reed Essick¹³, Hunter Gabbard¹⁴, Timothy Gebhard^{15,16}, Shaon Ghosh¹⁷, Leila Haegel¹⁸, Alberto Iess^{19,20}, David Keitel²¹, Zsuzsa Márka²², Szabolcs Márka²³, Filip Morawski²⁴, Tri Nguyen²⁴, Rich Ormiston²⁵, Michael Pürrer²⁶, Massimiliano Razzano²⁷, Kai Staats¹², Gabriele Vajente¹⁰ and Daniel Williams¹⁴

¹ European Gravitational Observatory (EGO), I-56021 Cascina, Pisa, Italy.
² Scuola Normale Superiore (SNS), Piazza dei Cavalieri, 7 - 56126 Pisa, Italy.
³ Istituto Nazionale di Fisica Nucleare, Sezione di Pisa, Pisa, I-56127, Italy.
⁴ OzGrav, Swinburne University of Technology, Hawthorn, Melbourne, VIC 3122, Australia.
⁵ Institute of Multi-messenger Astrophysics and Cosmology, Missouri University of Science and Technology, 1315 N. Pine St., Rolla, MO 65409, United States of America.
⁶ School of Physics and Astronomy, Monash University, Monash, Vic 3800, Australia.
⁷ OzGrav: The ARC Centre of Excellence for Gravitational Wave Discovery, Clayton VIC 3800, Australia.
⁸ Nicolaus Copernicus Astronomical Center, Polish Academy of Sciences, Bartycka 18, 00-716, Warsaw, Poland.
⁹ Department of Physics, The University of Western Australia, 35 Stirling Highway, Perth, Western Australia 6009, Australia
¹⁰ LIGO, California Institute of Technology, Pasadena, CA 91125, United States of America.
¹¹ School of Physics and Astronomy, University of Minnesota, Minneapolis, Minnesota 55455, United States of America



G2NET

16 de agosto · 🌐

G2net WG3 training school on Machine Learning for Advanced Control Techniques will take place online from 30 August to 2 September 2021, and it is organised by the group in Turku (Finland):

<https://g2net.eu/.../g2net-wg3-training-school-on-machine...>

Registration is open until 29 August 2021:

<https://indico.ego-gw.it/event/217/registrations/282/...> Ver más

Ver traducción



277

Personas alcanzadas

26

Interacciones

Promocionar publicación

Outreach and communication


- Publications of results from WGs, events and calls in web and social networks.
- **Webinars** by Dr. Jade Powell and Dr. Marco Cavaglia from International Partners Countries.
- **Kaggle competition** in gravitational wave detection challenge with impressive numbers.
Info to be collected and give visibility.
- **GWMull**: Virtual Meeting on Machine Learning and its applications to GW science.
- Dissemination in-person day cancelled due to pandemic.
Proposal of organizing it together with WG1 meeting in Valencia starting next year.
- Outreach **talks** for the general public.
Add your participation to **G2net**.



Research Prediction Competition

G2Net Gravitational Wave Detection

Find gravitational wave signals from binary black hole collisions

 European Gravitational Observatory - EGO · 1,219 teams · 8 days ago

\$15,000
Prize Money

[Overview](#) [Data](#) [Code](#) [Discussion](#) [Leaderboard](#) [Rules](#)

[Join Competition](#) ...

Outreach and communication

- In preparation: **Paper summaries** of activities of each Working Group → Virtual Networking Tools ??
- **Short movie “Patterns”**, in collaboration with Cine Luz del Mar cinema association (Alicante, Spain).
 - Script finished and registered. Filming also finished (great support from University of Valencia to use its facilities). Post-production in progress. Estimate to be ready before ending of this year. Festivals and premiers with round table.
 - Details: 10-15 minutes fiction short movie with scientific content of our COST Action (support from different core-group members) + short videos (1-2 minutes each) of core-group G2net members in mother languages with local affiliations.
 - Participation in round tables: science and cinema.
- **Mugs** or other gadgets with G2net logo for our final conference. Any ideas welcome.



We all miss in-person activities!