Citizen Science with Application to Nuclear, Seismic and Air Quality Monitoring

8-12 March 2021 Introduction (smr 3565) 15 - 19 March 2021 Applications (smr 3596) **An ICTP Virtual Meeting Trieste, Italy**

Open Science refers to an umbrella concept that combines various movements and practices aiming to make scientific knowledge, methods, data and evidence freely available and accessible for everyone, increase scientific collaborations and sharing of information for the benefits of science and society. This includes scholarly research that is collaborative, transparent and reproducible and whose outputs are publicly available. Within this framework, Citizen Science is a key element aiming inter alia to extend collaboration with societal actors beyond the scientific community by opening up practices and tools that are part of the research cycle.

In this online workshop we will understand how to balance low cost scientific tools and academic rigor. We will present several examples of successful Citizen Science projects, including nuclear monitoring, seismic sensors and air quality monitoring.

The workshop will include a first introductory week where we will present the scientific benefits of Citizen Science, its societal impact and the latest tools and instruments. The second week will be devoted to the development of low-cost nuclear radiation, seismic and air quality sensors. Participants may choose to only attend the first week or the complete activity, i.e. including the practical work on the development of low-cost sensors. For the second week, participants will have to indicate their preference in attending one of the three practical activities dedicated to nuclear radiation, seismic or air quality sensors.

Lectures will be held daily from 1pm to 4pm CET. Discussions will be held using an online collaboration platform.

Topics:

- Sustainable Development Goals and the role of technology
- Open Science and Citizen Science
- Citizen Science as Science
- 3D printing and the FabLab revolution
- The role of inexpensive technology in Citizen Science

Further information: http://indico.ictp.it/event/9462/ http://indico.ictp.it/event/9532/ smr3565@ictp.it

Directors:

F. FOULON, IAEA, Austria **D. STORTI, UNESCO, France**

Local Organizer: M. ZENNARO, ICTP

- Statistical inference in scientific reasoning
- What to do with data from Citizen Science Projects
- Practical work on the development of low-cost nuclear radiation, seismic or air

quality sensors

How to apply:

Online application: http://indico.ictp.it/event/9462/ http://indico.ictp.it/event/9532/

Female scientists are encouraged to apply.



There is no registration fee.

Deadline: 2 March 2021









Trieste, Ital

International Centre for Theoretical Physics

