

# Latin American Regional Workshop on SciTinyML: Scientific Use of Machine Learning on Low-Power Devices



**11 - 15 July 2022**  
**An ICTP Virtual Meeting**  
**Trieste, Italy**

Further information:  
<http://indico.ictp.it/event/9811/smr3721@ictp.it>

*The workshop will be bilingual (English and Spanish).*

TinyML is a subfield of Machine Learning focused on developing models that can be executed on small, real-time, low-power, and low-cost embedded devices. This allows for new scientific applications to be developed at an extremely low cost and at large scale.

## Directors:

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## Description:

The TinyML process starts with collecting data from IoT devices, then training the collected dataset to extract knowledge patterns; these patterns are then packaged into a TinyML model that considers the target microprocessor's limited resources such as memory and processing power.

The resulting model is then deployed on embedded devices where it is used to evaluate new sensor data in real-time. Typically, power requirements are in the mW range and below which enables a variety of use-cases targeting battery operated devices. TinyML represents a collaborative effort between the embedded power systems and Machine Learning communities, which traditionally have operated independently.

## Topics:

- ML general concepts
- Introduction to TinyML
- Getting started with the TinyML training kit
- Examples of TinyML applications
- Scientific Applications of ML

## Local Organiser:

M. ZENNARO, ICTP, Italy

## How to apply:

Online application:  
<http://indico.ictp.it/event/9811/>

Female scientists are encouraged to apply.

## Registration:

There is no registration fee.  
Priority will be given to the participants from Latin America that are part of the ICTP TinyML Academic Network.

## Deadline:

**29 June 2022**



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