



International Particle  
Physics Outreach Group

International Particle Physics Outreach Group

---

# Outreach Educational Activities in Latinoamerica

Yiota Foka (GSI)

Ruben Alfaro (UNAM)

IPPOG video-meeting 7 May 2020

# THE First PTMC in IMC

[THE First in arxiv 6 may: https://arxiv.org/abs/2005.02215](https://arxiv.org/abs/2005.02215)

## Mexico City UNAM, more than 100 students

Antonio Ortiz Velasquez, Guy Paic, Physics

Luis Alberto Medina Velazquez, Medical Physics

web page

[http://epistemia.nucleares.unam.mx/web?name=fisica\\_y\\_sociedad\\_2020](http://epistemia.nucleares.unam.mx/web?name=fisica_y_sociedad_2020)

Indico timetable

<https://indico.nucleares.unam.mx/event/1363/timetable/#20200302>

## Article in the UNAM Gaceta

<https://www.gaceta.unam.mx/clase-maestra-de-fisica-a-jovenes-de-bachillerato/>



## Puebla, BUAP

Irais Bautista Guzman

webpage

<https://www.fcfm.buap.mx/ParticulasElementales/seminarios/PT/index.html>

Last minute readjustments due to strike  
**Still about 50 students (20 female)**

On youtube

<https://youtu.be/pqx1Gj28GBE>

# PTMC in MXC 2<sup>nd</sup> March 2020



# Un día de física | para la sociedad

Un día de física y su impacto en la sociedad

2 March 2020  
ICN-UNAM, IF-UNAM  
Mexico/General timezone



- Overview
- Timetable
- Contribution List
- Author List
- Speaker List
- Registration
  - Registration Form
- Participant List
- Photos

## Participant List

## PTMC in MXC 2<sup>nd</sup> March 2020

Number of participants: 104

<a href="#">name</a>	<a href="#">institution</a>	<a href="#">position</a>	<a href="#">city</a>	<a href="#">country/region</a>
AGUILAR ARÉVALO, Alexis	ICN, UNAM		Mexico	Mexico
ALENCASTE DESACHY, David Antonio	CCH Sur	Estudiante (BECA 100%)	Mexico	Mexico
ANIMAS AVILA, Yessica Alejandra	Colegio Anglo Mexicano Coyoacán	Estudiante (BECA 100%)	Mexico	Mexico
ARREDONDO HERNÁNDEZ, Jesús Enrique	Escuela Nacional	Estudiante	Mexico	Mexico

Closed registration  
reaching max capacity of  
auditorium (100 students)  
2x25 groups for hands-on



Instituto de  
Ciencias  
Nucleares  
UNAM



Un día de | para la  
física | sociedad

02032020  
DÍA MES AÑO

# Hands-on: a strong experience



- We could not see how physics relates with medicine
- When listening at the lectures in the morning we could not believe that in the afternoon we would be able to handle treatment planning and with such accurate results

**After the PTMC event  
Moderation centre  
for Latinoamerica**

# PTMC Online Tutorials for Latinoamerica

After the 2 March PTMC in MXC plans on the spot

**Mexico city, UNAM:**  
support and moderation centre  
to spread PTMC/IMC in Latinoamerica

**PTMC in Latinoamerica on 22 May 2020**  
BUT.... we went online.....

**Contacts** already via UNAM (Ruben):  
Guatemala, Honduras  
Organise groups of students/tutors  
practical, logistics, venue, equipment, transport

**To come:**  
Venezuela, Costa Rica, El Salvador, Chile...

**Online tutorials on zoom by UNAM tutors**

- Itzel Viridiana González Badillo
- Alejandro Enrique Sánchez Vázquez

**With Guatemala and Honduras**



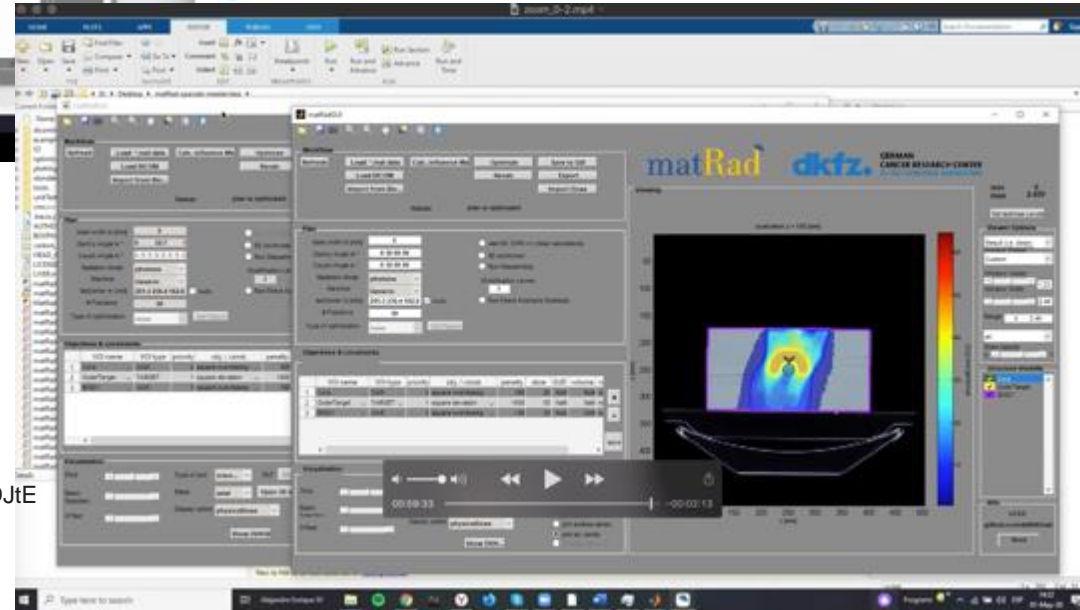
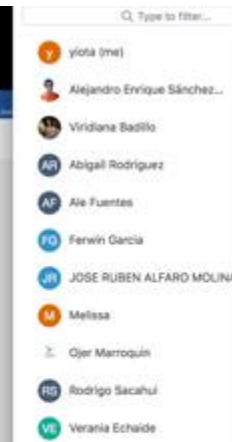
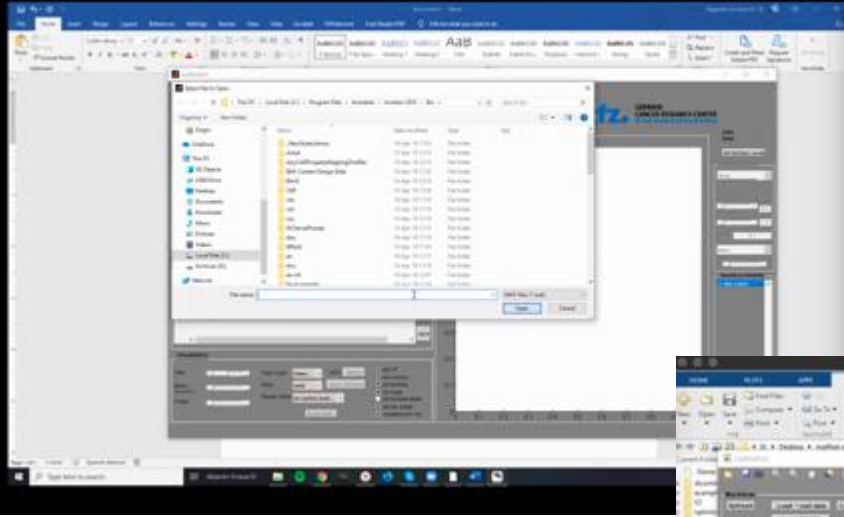


# PTMC Online Tutorials

Test recording:

- Spanish
- English

List of improvements for next one

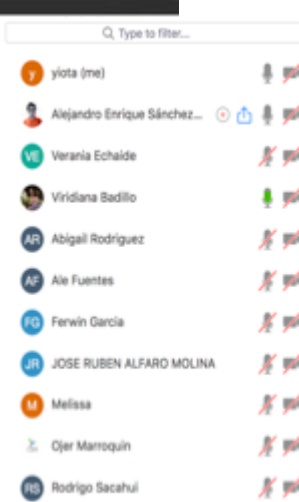


Tested even via a mobile phone:

from mobile phone on a laptop screen

Material in google drive

[https://drive.google.com/drive/folders/1u7okYFTIIFmiWLj\\_uLN0PDedyGk9DJtE](https://drive.google.com/drive/folders/1u7okYFTIIFmiWLj_uLN0PDedyGk9DJtE)



## PTMC Plans in Mexico

To also target:

- under-privileged areas
- female students
- teachers

For Uni students

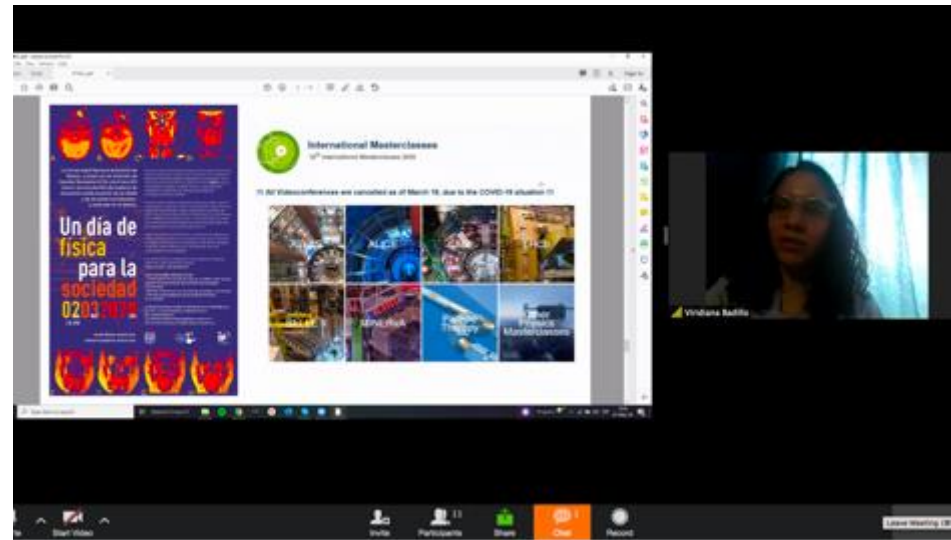
**Social Media:** (and witnesses !)  
volunteers for twitter, facebook, instagramm

**Important: material in Spanish**

**Important: personal support for new-comers**

**Challenges:** lack of equipment (PC, laptop...)  
remote places, long walking distance from school,  
difficulties of female students,  
most school-children (students) not speaking english...

**Give opportunities, new talents !**



# Masterclass' impact on choise of topics of studies

Viridiana Badillo

Biomedical Systems Engineering Student @ UNAM.

Alejandro Enrique Sánchez

Mechatronics Engineering Student @ UNAM.

# From participants to collaborators

Attendees of IMC were attracted by  
Science, Technology, Engineering  
and Math careers.

It was definitely our case



It is inspiring to young students.

This could mean more professionals in STEM  
topics

**Noteworthy fact:**  
now we collaborate in UNAM with our MC tutor  
Antonio Ortiz Velasquez



# From participants to collaborators

## MasterClass for female high-school students in Mexico

### PROJECTS

- **“Space 4Women”** as mentor Representing North America and the Caribbean. The United Nations Office for Outer Space Affairs (UNOOSA). 2020
- **"Scientific Empowerment Camp"** as mentor, jury and manager. National Institute of Optical and Electronic Astrophysics INAOE. 2019
- **“Women into Space”** as mentor. Mexican Space Agency. Since 2019

### Employment and Education

- Finishing the MSc in Physics Education, Physics and Science Communication, B from UNAM
- Working for the **Mexican Space Agency**, Industrial Development Coordination, Since 2015

