

Stronger Together

- STEM Education and Outreach during the COVID pandemic



CENTER FOR THE
ADVANCEMENT OF
WEARABLE
TECHNOLOGIES





Expand Access to
Quality STEAM
Education



Prepare STEAM
Educators



Address students
STEAM identity,
attitudes,
motivation



Enhance support
systems for
undergraduate
and graduate
STEM students



Strengthen
institutional
Capacity



Address career
needs of STEAM
professionals



Provide STEAM
engagement and
communities to
promote STEAM
studies and
careers

*Education and
Outreach Vision*

Engage a **broad** community, a vision for change and embracing the importance and **power of diversity** for scientific innovation and education to develop a capable workforce in STEAM.

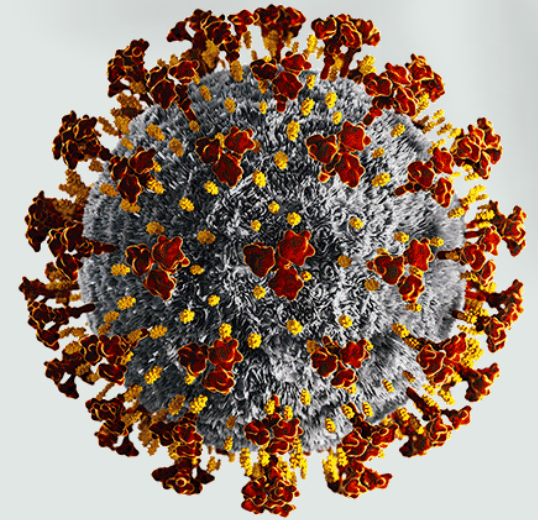
The 2020 presented a new scenario with a lot of challenges for STEAM education ...

Catastrophic Event - Earthquakes in Puerto Rico

- Limited access to K-12 schools.
- Limited access to University and Research Facilities.

COVID19- Pandemic

- Lack of materials and resources for online education for Hispanic populations
- Research Internships -Access to laboratory and travels were restricted
- Summer Camp in a new modality
- Teachers & Professor are burdened and stressed



Collaboration among different Research programs were reinforced to respond to the Pandemic and Empower the Next Generation of Hispanics students in STEAM through different initiatives...



Dr. Eduardo Nicolau



Dr. Liz Díaz-Vazquez



Dr. Carlos Cabrera



Dr. Key



Dr. Arturo Hernández



Dr. Madeline Torres-Lugo



Dr. Brad Weiner



Dr. Jaime Abreu



Dr. Gerardo Morell



Dr. Carmen Noemi Cintrón



Dr. Ileana Feliciano



Prof. Davi

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Initiatives



Synchronic and synchronic Courses workshops and Summer Camps



Development of Educative Material and Videos



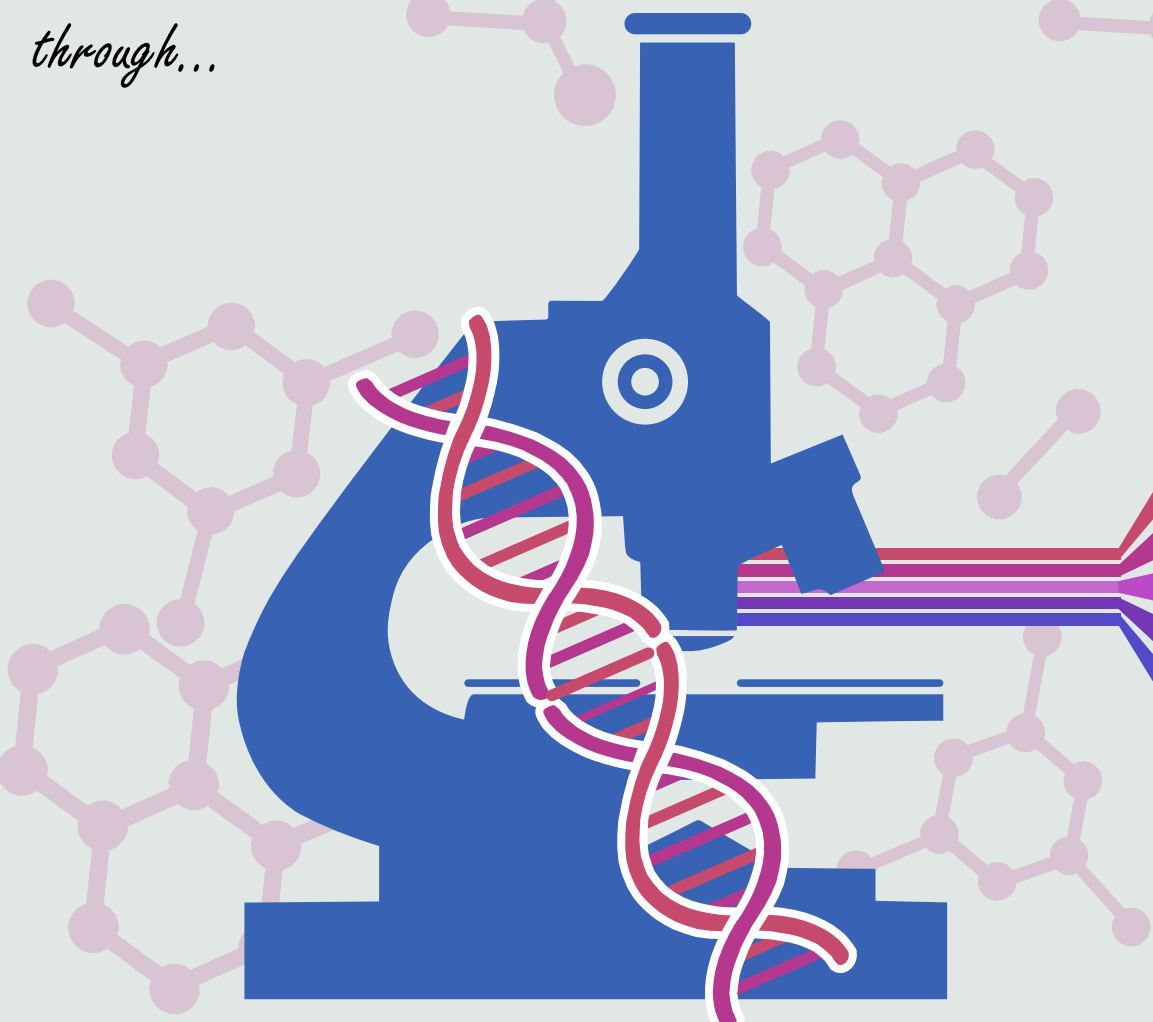
Virtual Tours of Research Facilities



Initiatives to increase women in STEAM



Online Activities to Provide relevance to STEAM Careers & Visibility of Role Models



*Our Initiative facilitate the access of students to opportunities offered by
Different Research Programs*



Research Experience (Semester and Summer Internships)



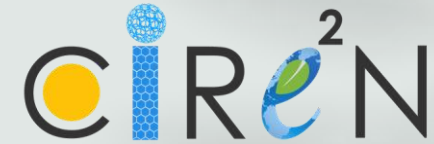
New courses and laboratory experiences



Science Communication Training/ Outreach and Education Experiences



Professional Development Workshops, and Mentoring Program





CIRE2N

64 suscriptoras

SUSCRITO



INICIO VÍDEOS LISTAS DE REPRODUCCIÓN CANALES COMENTARIOS MÁS INFORMACIÓN



Subidas REPRODUCIR TODO

ORDENAR POR



Clonal Arte 2020 15 visualizaciones - hace 4 meses	Contaminantes Emergentes durante la Pandemia 27 visualizaciones - hace 4 meses	Microscopía Electrónica - XaimaraSantiago 5 visualizaciones - hace 4 meses	Energía Renovable - Cristina Vargas Ortiz 4 visualizaciones - hace 4 meses	Composta Casera - Gloria Ortiz 1 visualización - hace 4 meses	Química pegajosa desde la playa y Laboratorio 4 visualizaciones - hace 4 meses
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¿Como la nanotecnología Impacta al ambiente? - Jos... 6 visualizaciones - hace 4 meses	Grafeno - José Rámirez 9 visualizaciones - hace 4 meses	Nanopartículas ¿Qué Son, Y Para Qué Sirven? - Sebastia... 13 visualizaciones - hace 4 meses	Nanotecnología Ambiental - Juan Cintrón 15 visualizaciones - hace 4 meses	Corredor del Yaguazo - Recorrido 34 visualizaciones - hace 9 meses	Empowering the Next Generation of Latinas In... 29 visualizaciones - hace 10 meses
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Elevator pitch: Sebastian Suarez 12 visualizaciones - hace 10 meses	Área Superficial 21 visualizaciones - hace 10 meses	Explosión de colores en la leche 22 visualizaciones - hace 10 meses	Elevator pitch: Decilia García 16 visualizaciones - hace 10 meses	Las Baterías 16 visualizaciones - hace 10 meses	Elevator pitch: Juan González 9 visualizaciones - hace 11 meses
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Elevator pitch: Joanne	Elevator pitch: José Ramírez	Elevator pitch: José	Elevator pitch: Juan Cintrón	Elevator pitch: Marielva	Elevator pitch: Silmara Labov
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Development of Educational Videos & Virtual Days

Our work to educate the community did not stop. We created videos and workshops to educate the public about the COVID19 pandemic and ways to protect themselves from it.

In addition, over 30 educational videos and online events, such as Nanodays, were made available to provide teachers and students with the tools to continue their learning process and get familiar with our research projects.

These resources were made available through our social media, internet pages and you tube channels:

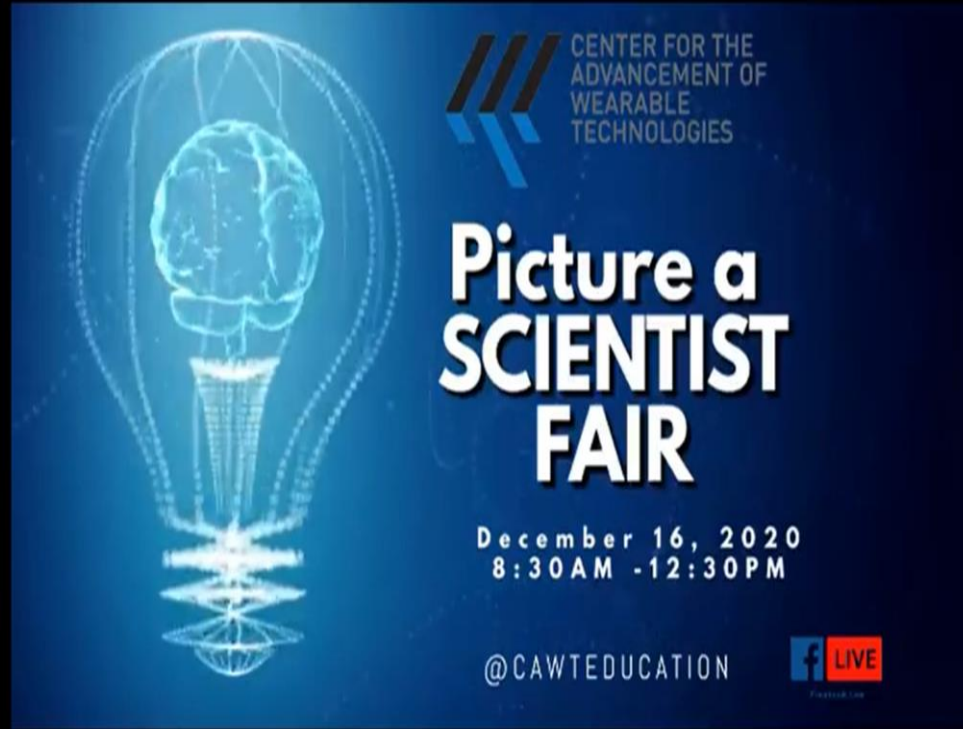
@CAWTEducation

@poderlatinasSTEAM

@CIRE2Neducation

@PRSRINTEducation

- It was online forum to promote careers in STEAM
- Fellows and Researchers were interviewed about their journey in science careers
- Provide Recommendations about how to pursue a career in STEAM disciplines
- It impacted more than 200 participants



especializo en Química Computacional, lo que significa que solo uso la computadora para resolver problemas de Química. 70000

Facilities

Virtual tours

- **Teachers and Student were provided with virtual tours of CAWT facilities to increase interest in STEM careers.**
- **Question & Answer Section**

Symposium the Power of Women in Science

Recognizing the importance of increasing the diversity and number of women in STEM professions, we adjusted our activities to celebrate our second symposium: **The power of women in science** in a virtual format. More than 35 women scientists presented their stories and research to inspire girls

To increase the reach of the activity, we created an internet page where we included all the information related to the event and made it accessible to all participants.

Visit the symposium webpage in this link:

<https://steamlatinas2021.Wixsite.Com/simposio>

<https://steamlatinas2021.Wixsite.Com/simposio>

The symposium had several sections to give the girls the opportunity to interact and ask questions to their favorite scientists, draw and impersonate their favorite scientists and learn about opportunities near them



Cire2n was live.
April 16 at 9:32 AM · 🌐



Book on STEM

careers:

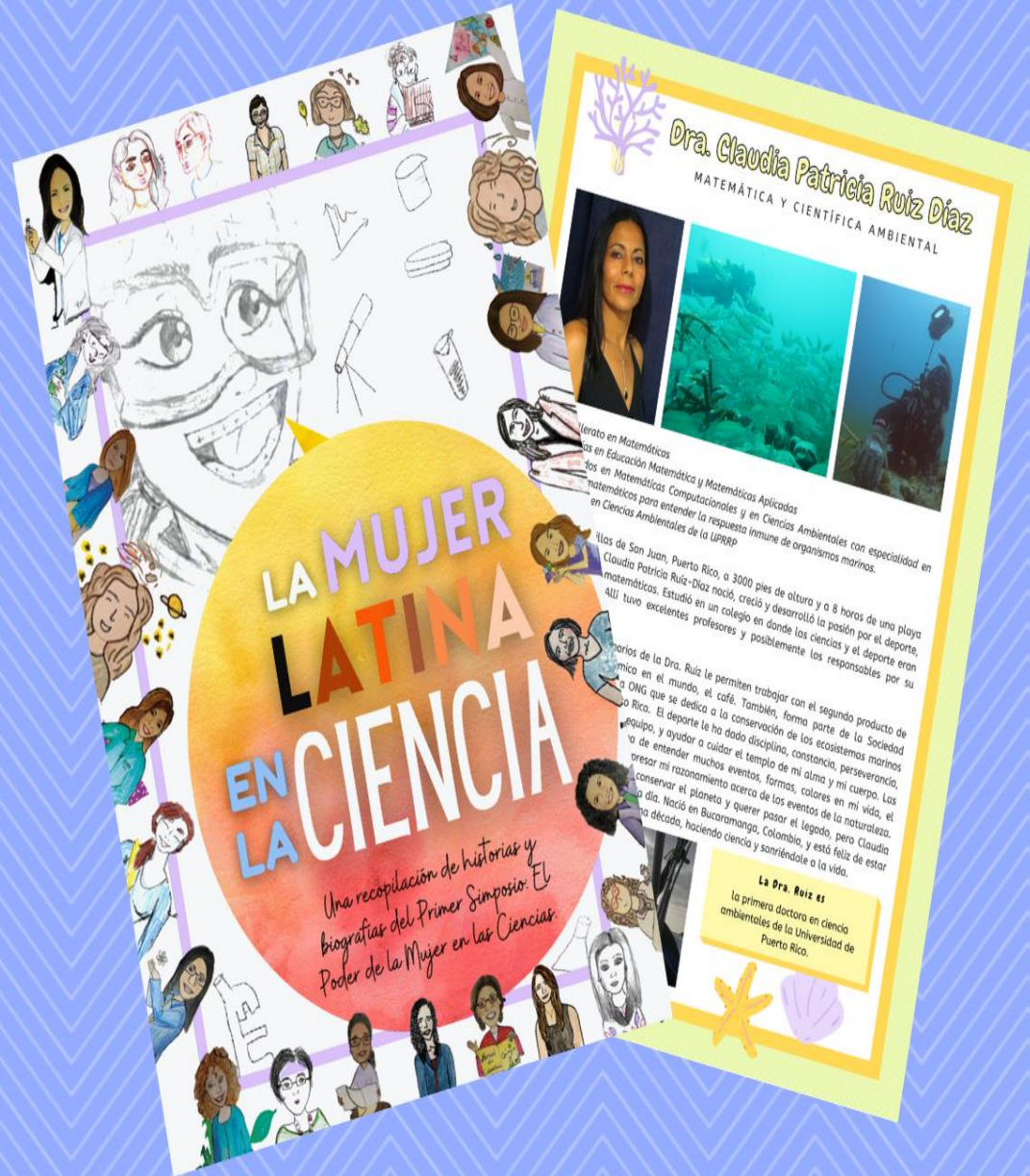
¡La mujer Latina en la Ciencia!

The book is a compilation of the events of the First Symposium the Power of Women in Science was made available to the public.

It presents the biographies of successful Latin women scientists, the drawings of role model scientist made by the girls that participated in the symposium.

It can be downloaded free of charge in the following link:

<https://drive.google.com/file/d/1SGnajdALCG267Puym-ZBYt4aE27Vjt5v/view?usp=sharing>



Empoderando a la Nueva Generación de Latinas en STEAM



Daniela Alfonso, Dra. Liz Díaz, Dra. Bonny Ortiz
Con contribuciones de: Andrea Guzmán, Dra. Denisse López,
Natasha Dávila y otros estudiantes de la UPRRP

NANOAMBIENTE

VOL. II

ENERO 2020

SENSORES PARA
MONITOREO AMBIENTAL

NANOAMBIENTE

VOL. I

OCTUBRE 2019

NANOMATERIALES PARA
REMEDIACIÓN DE AGUAS
Y SUELOS

Take a look at Nanoambiente, our educational magazine and explore our projects!

<http://www.cire2n.upr.edu/nanoambiente/>

Positive Aspect of Online EOD

Positive Aspects

Accessibility Of Time And Place

Higher impact to General Public

Flexibility

Reach of Rural Areas

Disadvantages

Limited Access to Research Facilities

Limited Hands-on activities

Isolation

Latest Videos



2do Simposio:
4 days ago · 147 Views
7



Cire2n's Video
4 days ago · 71 Views
4



2do Simposio: El poder de la Mujer en la Ciencia
5 days ago · 377 Views
15



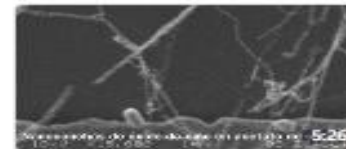
Cire2n's Video
5 days ago · 191 Views
2



Química Pegajosa desde la playa y Laboratorio
18 weeks ago · 670 Views
Gladys Dávila, Milny Lugo and 25 others



Nanopartículas Que Son Y Para Que Sirven
18 weeks ago · 55 Views
Bliz Hernandez



Ciencia Arte 2020
18 weeks ago · 61 Views
6



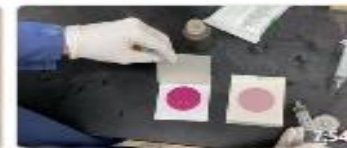
Nanoday Virtual 2020
18 weeks ago · 813 Views
22



Efecto Invernadero
18 weeks ago · 47 Views
Rahina Mohamedova and 4 others



Ecosistemas
18 weeks ago · 71 Views
Bliz Hernandez and 1 other



Técnica de Coliformes
18 weeks ago · 75 Views
Bliz Hernandez and 5 others



Calidad de Agua
18 weeks ago · 37 Views
Bliz Hernandez and 4 others



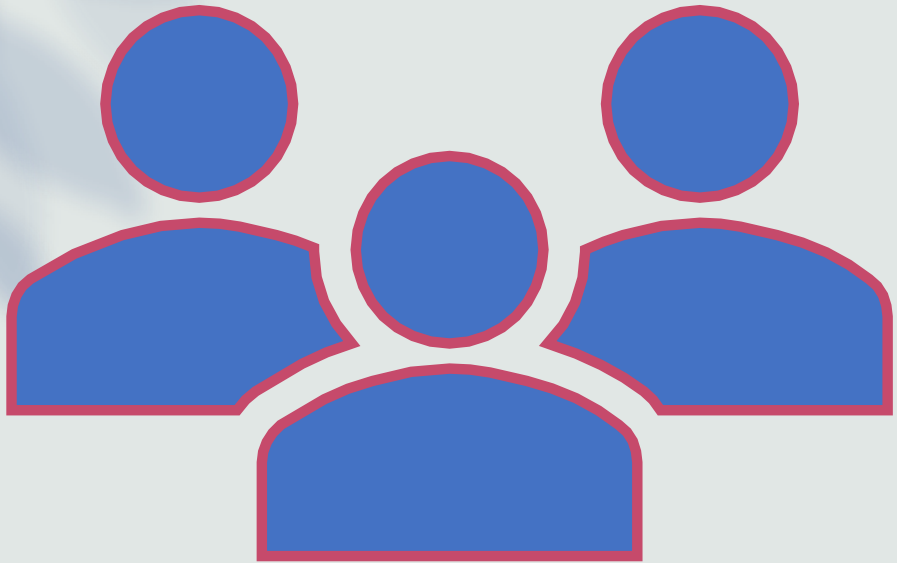
¡Hoy queremos felicitar a Sofia Rojas por ganar el primer lugar en la...
23 weeks ago · 57 Views
8



Cire2n's Video
47 weeks ago · 570 Views
19



Cire2n's Video
47 weeks ago · 621 Views
11



Meet our Team



Dr. Liz M. Díaz-Vázquez

Empowering the Next Generation of Latinas in STEAM-
PI & Project Director

NASA-MIRO-SPRINT & NSF-CREST-CIRE²N
Co- Principal Investigator & Co-Project Director
NSF-CAWT-Outreach & Education Coordinator

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Empowering the Next Generation of Latinas in STEAM





Dr. Carlos Cabrera
Principal Investigator
Project Director



Dr. Ileana Feliciano
Outreach and Education
Coordinator



Dr. Keyla Soto
Outreach and Education
Coordinator





Dr. Arturo Hernández

Principal Investigator
Project Director

Dr. Madeline Torres

Co-Principal Investigator

Dr. Brad Weiner

Co-Principal Investigator



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TECHNOLOGIES





Dr. Eduardo Nicolau

Principal Investigator & Director-
NASA-MIRO-SPRINT & NSF-PRLSAMP





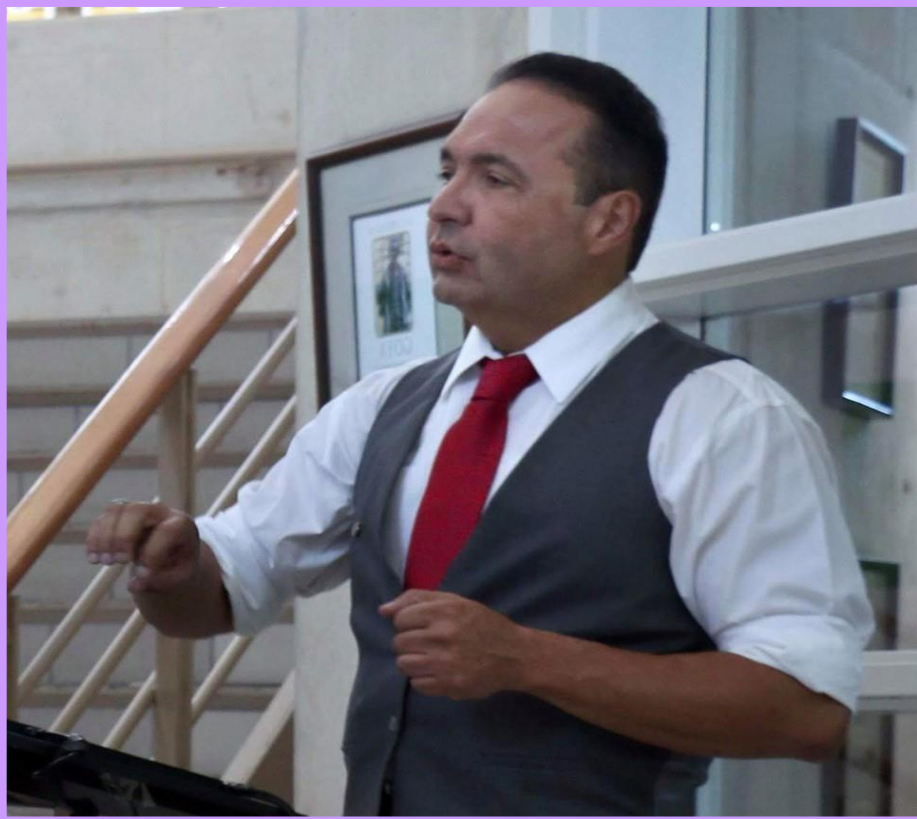
Dr. Jaime Abrea

Principal Investigator
Project Digitalization of Events
University of Puerto Rico,
Rio Piedras High School (UHS)



Professor David Ocasio

Music Director
University of Puerto Rico,
Rio Piedras High School (UHS)



Partner

Dr. Gerardo Morell

Principal Investigator

Project Director



Dr. Carmen Noemi Cintrón

Associate Director, Empowering
the next Generation of Latinas in
STEAM - Co-PI & Co-Director

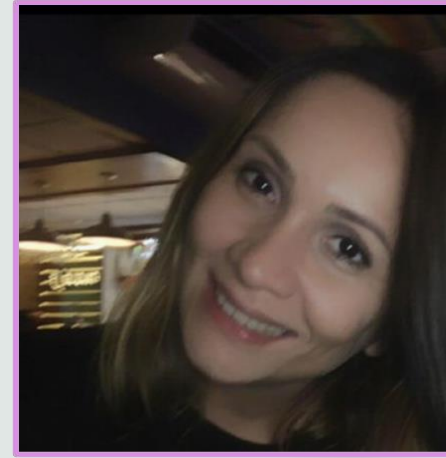
Science & Art Collaborators



Dr. Yamir Torres
Video Editing- Audiovisuals



Symposium organization committee,
video editing, graphic design,
illustrator, book editor



Dr. Maria Gil
Webmaster - Dissemination



Mr. Carlos Malca
Video Editing - Audiovisuals



Mrs. Daniela Alfonso
Graphic design,
illustrator, book editor



Mrs. Andrea Guzman
Scientific Illustrator

Science Ambassadors



Jennifer Gil



Alondra Rodríguez



Lisby Santiago



Junellie Cruz



Jose L. Ramírez



Ashley Vázquez



Marielys Torres



Dara Rodríguez



Liz Santiago



Daniella Vargas



Yelitce Reales



Yeiza Hernández



Nilsa Aponte



Student Associations and Organizations



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This material is based upon work supported by:

(1)The National Science Foundation under grants:

NSF-CREST-CIRE2N - NSF-HRD #1736093
CAWT- NSF GRANT NO. OIA-1849243
PR-LSAMP GRANT NO.1400868

(2) National Aeronautics and Space Administration (NASA) under grants:

NASA MIRO-PRSPRINT GRANT # 80NSSC19M0236
PR Space Grant Consortium NASA Grant No. 80NSSC20M0052

Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation or NASA.

