

## Accessible Astronomy Activities for the Blind and Visually Impaired in Puerto Rico Gloria M. Isidro Villamizar, Ed.D. **Professor, Caribbean University, PR** Researcher, Círculo Astrofísico de Puerto Rico, UPRRP



# Tactile Model of Radio Telescope









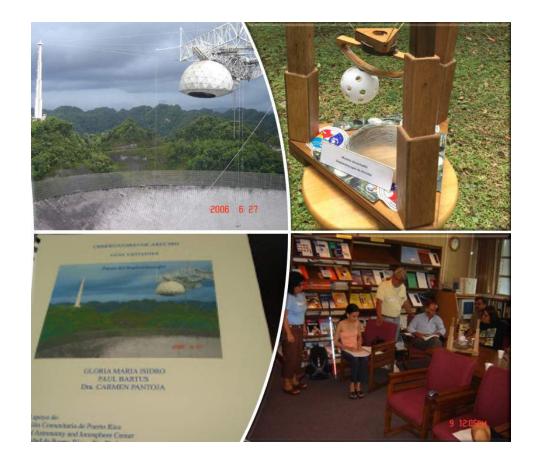
Touching the Stars: "A Workshop in Astronomy for the Visually Impaired"

Gloria M. Isidro and Carmen A. Pantoja University of Puerto Rico Río Piedras Campus



### Inclusive Workshop "Sideral Messengers" in Collaboration with the Arecibo Observatory, Summer 2008

We developed an inclusive workshop to prepare volunteer university students for IYA2009 activities





Bingo en Braille *"*A JuGar con Galileo" AAA UPR en colaboración con el Observatorio de Arecibo y la <u>Fundación Comunitaria de Puerto Rico</u> Verano del 2009

#### IYA2009 in Collaboration with the Arecibo Observatory

We designed and develop 3D tactile material to offer blind people the opportunity to get the conceptual idea of the specific topic under consideration.

### 100 Hours of Astronomy IYA2009

#### Conferencia Bienal de Asistencia Tecnológica PRATP, Universidad de Puerto Rico.

CONTRACTOR OF CONT

### IYA2009 Puerto Rico in collaboration with IYA2009 Israel Science and Astronomy Conference



### IYA2009 Puerto Rico in IYA2009 Israel Workshop for Special Education Teacher in Preparation, Afula



# Accessible Astronomy Activities for the Blind People in Collaboration with the Astronomical Observatory of the University of Valencia, Spain.



### The Tactile Sun – GAM 2013





Tactile Spiral Galaxy - IYL2015 We designed tactile and 3D materials based on the Principles of Universal Design for Learning.







## The Tactile Mars Model GAM2016

We designed tactile and 3D materials based on the Principles of Universal Design for Learning.

## Alma Antenna Paper Models -November 2016







### In collaboration with the Puerto Rican Association of blind, Inc.

Total Solar Eclipse Augusto 2017





We bring astronomy to the community In collaboration with the EcoExploratorio Puerto Rico Science Museum, July 2019 Accesible Astronomy Activities for the Blind and Visually Impaired in Puerto Rico & Covid 19

• We make video recordings with our tactile materials.

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- We continue to develop 3D materials for future projects.
- YouTube: <a href="https://www.youtube.com/user/gloriaisidro/videos">https://www.youtube.com/user/gloriaisidro/videos</a>
- Blog: <u>http://materialdidacticoparaciegos.blogspot.com/</u>

### Thank you!



Actividades Accesibles en Astronomía para Personas Ciegas Puerto Rico

