

Implementation of interactive digital tools for Astronomy education



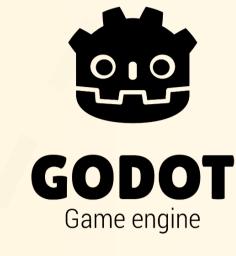
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Development:

p5_{*}Js



Deployment:



All done with open access software!

DESIGN CONSIDERATIONS:

- Choose clear learning goals to build upon.
- Use the simulations to tackle misconceptions.
- Focus on a **specific phenomena** and think about the ways it can be shown, understood, and misunderstood.
- Realism is not always necessary. It's the teacher's task to land the concept, and to discuss the model's inaccuracies.
- Descriptive buttons often help guide the user.

ACTIVITIES GUIDELINES:

- 1. Identify students' preconceptions.
- 2. Let them **explore** the simulation on their own, guiding them to experiencing the phenomena.
- 3. Ask them to formulate **hypotheses**, make measurements, and register data.
- 4. **Discuss** afterwards: formulate a model based on observations.

FUTURE WORK:

- Further classroom research and feedback
- Solar System simulation with PhET
- More activities on their way!







ORGANISERS:





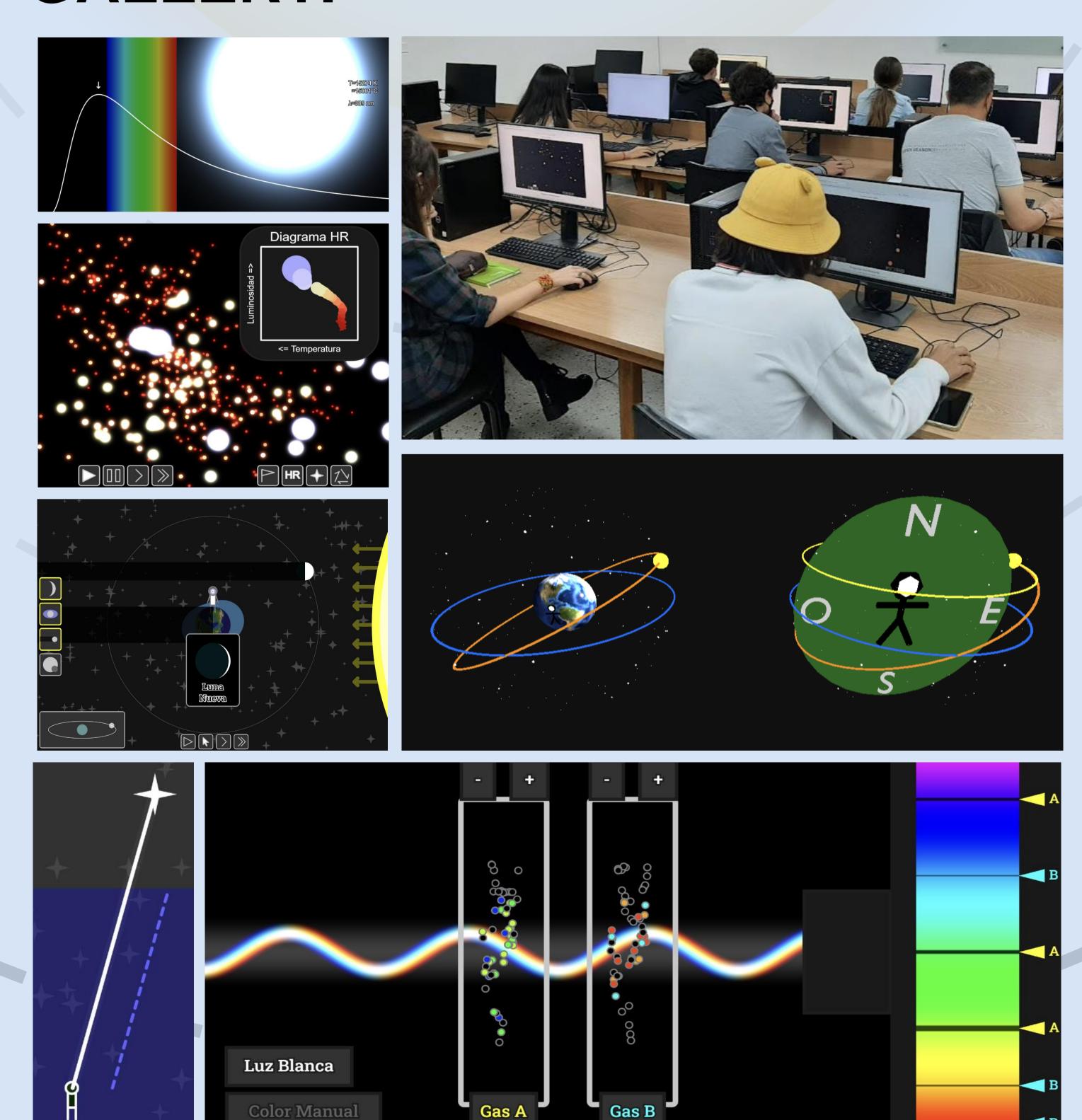


SIMULATIONS:

- **Basic Astronomy**
- Telescopes & Coordinates
 - Solar System Models
 - Eclipses and Tides
- Light & Spectra
- Orbital Mechanics
- Stellar Evolution



GALLERY:



4th Symposium on Space Educational Activities April 27th, 28th, 29th 2022 - Barcelona, Spain