

Celaeno problem set

Interstellar space is filled with all kinds of electromagnetic radiation emitted by categories of celestial bodies and one of the kinds is pulsar star, which emits waves of all wavelengths along with its two jets on opposite sides.

Earth's atmosphere allows only waves of a certain frequency range and that range is called optical and radio window which allow only visible and radio waves. Teams have to analyze the data collected by ground based radio telescopes of pulsars(They may collect the data from <link>) and train a ML model to detect the pulsars. Test data will contain radio signals with noise, and they have to find the pulsars among it.

Benefits:

1. It would benefit students to learn more deeply about electromagnetic spectrum and pulsar radiation.
2. They would learn about the role of Machine learning in the field of astronomy.

Money required: 0.00

Prize pool: 10k