

Dr. Jessica Esquivel: From Sci-Fi to Scientific Innovation

Dr. Jessica Esquivel is an inspiring physicist and advocate for diversity in STEM (Science, Technology, Engineering, and Mathematics). Growing up, Jessica faced numerous challenges, but her interest in science developed in a most unusual way: by watching science fiction movies! She cites the film *Contact*, in which Jodie Foster plays an astrophysicist, as a pivotal moment that hooked her. Here was a woman leading a scientific inquiry!



Jessica completed her undergraduate studies in her home state of Texas before pursuing a PhD in particle physics at Syracuse University in New York. She earned her PhD during a time when the number of Black and Latinx women in the field was very low. As a woman of both African and Latin American heritage, Jessica often felt isolated during her graduate studies, frequently finding herself as one of the few women and people of color in meetings. Despite these challenges, she sought support from mentors and peers and learned the value of a strong support network.

She currently works at Fermilab, a leading laboratory for particle physics research, where her research focuses on the properties of muons. Muons are elementary particles similar to electrons but with much greater mass. Understanding muons is fundamental to understanding the forces in the universe.

In addition to her scientific work, Dr. Esquivel is dedicated to making STEM fields more inclusive. She mentors students from underserved communities, helping them see that they too can succeed in science. Her efforts aim to break down barriers and open doors for future generations of scientists.