

I am Ridha Fathima Mohideen Malik from India. I recently graduated from the Erasmus Mundus Master's programme in Astrophysics and Space Science. I have been selected for a PhD in high-energy transients at the University of Ferrara and ICRANet.

I have been collaborating with Professor Maria Dainotti since the summer of 2022. As a fresh graduate in Physics, she provided me the opportunity to work on a large-scale project to build a catalogue of gamma-ray burst (GRB) optical afterglow lightcurves. This effort involved more than 50 researchers and students around the globe. My role was to design the necessary software for this project and assisted in preparation of the manuscript. We completed the project successfully and published a paper titled ["An optical gamma-ray burst catalogue with measured redshift – I. Data release of 535 gamma-ray bursts and colour evolution"](#) in the Monthly Notices of the Royal Astronomical Society.

For this project, she helped me secure NAOJ's External Research Grant to be able to pursue the project. As a fresh graduate then, it was incredibly helpful to have the financial support, while honing essential skills required in a research career. Maria gave me the opportunity and time to learn and implement new softwares during this project. Despite my not having prior experience in GRBs or astronomical data collection, she gave me some complex tasks that helped me grow as a researcher by developing my critical thinking and confidence in approaching complex questions. She gave me multiple opportunities to lead various aspects of the project, giving me a perspective of the soft skills required to manage research.

Moreover, the multicultural aspect of the project brought together the different ways we can approach scientific inquiry. This diverse environment also helped me to form crucial contacts required as an early career researcher. Maria provides individual attention to her students. She recommended me to the Erasmus Mundus Master's programme in Astrophysics and Space Science which I was selected with a scholarship. This eventually led to new doors for me and Maria continued to be encouraging and patient while I was trying to balance my master's programme and the project.

Overall, this internship has been crucial in giving me a head start in GRB research, which I pursued through my master's and now, in my PhD. I gained practical insights into the complexities of astronomical data analysis and the importance of meticulous research in advancing our understanding of GRBs.