Testimonial Letter

I am a passionate researcher and aspiring master's student in computational quantum chemistry and nano-chemistry. Due to educational barriers in my country that prevented me from pursuing chemistry directly, I completed my degree in pharmaceutical sciences while independently mastering quantum chemistry, molecular modeling, and Python for chemical simulations. My perseverance led me to research collaborations, including cosmological data analysis with Professor Maria Dainotti, which further strengthened my computational skills and deepened my fascination with observing and analyzing the behavior of atoms and matter at macroscopic scales – that always fascinates me!! I collaborated with Professor Maria on a cosmological research project studying Type Ia supernovae to address the Hubble tension.

Working with Professor Maria Dainotti on cosmological parameter analysis has been a pivotal experience in my scientific journey. Despite my formal background in pharmacy, Maria's mentorship allowed me to apply my self-taught physics and programming skills to real astrophysical problems. Her patience in guiding me through complex datasets and her openness to collaborative problem-solving helped bridge the gap between my chemistry-focused training and cosmology. This project and paper not only sharpened my Python and data analysis skills but also reaffirmed that passion and perseverance can transcend academic boundaries. I'm deeply grateful for Maria's support and the opportunity to contribute meaningfully to her team.

As mentioned, I previously collaborated with Professor Maria on cosmological research analyzing Type Ia supernovae to investigate the Hubble tension, resulting in a publication in the Journal of High Energy Astrophysics. Currently, I am working with her on two new projects: one studying quasars, and another focused on GRB cosmology where we analyze gamma-ray burst data. These opportunities have been incredibly rewarding, and I look forward to further contributions in these dynamic areas of astrophysics research.

Sincerely,

Sama Khanjani