

January 24, 2025

TESTIMONIAL LETTER

Dear Dr. Dainotti,

I am Rafid H. Dejah, a researcher in theoretical cosmology, with a primary focus on inflationary cosmology, modified $f(R)$ gravity, and the Hubble tension. My work involves active engagement in projects closely aligned with these research areas, contributing to advancements in our understanding of the universe's fundamental dynamics. Furthermore, I collaborate extensively on international initiatives, including the COST Actions CA21106: COSMIC WISPerS in the Dark Universe and CA21136: CosmoVerse, fostering cross-disciplinary research in cosmology and astrophysics.

I first connected with Dr. Dainotti while navigating the requirements of my PhD application process. Amidst the ambiguity and numerous questions I faced, Dr. Dainotti generously provided insightful guidance, which proved invaluable. Fast forward to November, I had the privilege of commencing academic collaboration with Dr. Dainotti on our recent paper titled, **"A New Master Supernovae Ia Sample and the Investigation of the H_0 Tension"**. This endeavor has been profoundly enriching, marked by intellectual rigor and exceptional teamwork. Over the past three months, my experience working with Dr. Dainotti has led me to the following observations:

- Dr. Dainotti's expertise in high-energy astrophysics, particularly her work on gamma-ray bursts (GRBs) and many other scientific achievements, underscores her profound understanding of the universe's most energetic phenomena. Her research has provided significant insights into the mechanisms of GRBs and their potential as cosmological probes.
- Under Dr. Dainotti's mentorship, our team delved into the challenging domain of cosmological tensions, specifically addressing the Hubble constant (H_0) tension.
- Her adeptness at providing insightful direction, fostering meaningful discussions, and ensuring rigorous adherence to the scientific method has significantly enhanced our research process.
- Dr. Dainotti's encouragement to approach problems creatively, while grounding our analyses in robust methodology, has been particularly inspiring. The collaborative dynamic she fosters has enabled us to make meaningful contributions to the broader field of cosmology and the study of Supernovae Ia.
- This experience has been invaluable for my personal and professional growth. I am grateful for the opportunity to collaborate on such an impactful project alongside Dr. Dainotti and our team.
- We are currently discussing potential future projects, aiming to further explore and address pivotal questions in cosmology, thereby continuing our productive collaboration.

Sincerely,

Rafid H. Dejah



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