

CHAMANI MADUSHIKA GUNASEKERA

CONTACT INFORMATION	Email: cmgunasekera@uky.edu
CITIZENSHIP	Sri Lanka
RESEARCH INTERESTS	Theoretical Astrophysics and Astrophysical Data Analysis. In particular, ISM dust depletion and [O I] emission line discrepancies in emission line galaxies.
EDUCATION	University of Kentucky (UK), Lexington, KY, USA PhD Candidate (Post-Qualified), Physics & Astronomy <ul style="list-style-type: none">Advisors: Gary Ferland & Renbin Yan College of Saint Benedict & Saint John's University (CSB/SJU), St Joseph, MN, USA BA, Physics & Mathematics, May 2017 <ul style="list-style-type: none">Advisors: Jim Crumley
RESEARCH EXPERIENCES	Summer Graduate Research Assistantship, UK, Summer 2020 Project Title: Analyzing source of Blazhko effect in RR Lyrae type variable stars. Advisor: Ronald Wilhelm Summer Research for Undergraduates, CSB, Summer 2016 Project Title: Finding notable characteristics of solitary waves near Polar-Magnetopause crossing, using Polar, OMNI, ACE, and WIND satellite observations. Advisor: Jim Crumley Summer Research for Undergraduates, CSB, Summer 2014 Project Title: Mathematical modelling of iron homeostasis in <i>Salmonella Typhimurium</i> Advisor: Jennifer Galovich
RESEARCH ARTICLES	1. Effect of Grain Depletions in the Interstellar Medium on Strong Lined Spectra, (with Xihan Ji, Gary Ferland, Renbin Yan, and Mario Chatzikos) in preparation. 2. Updating Cloudy to Compute Post-Depleted Element Abundances Using Depletion Strength F_* (with Gary Ferland, Mario Chatzikos, Renbin Yan, and Xihan Ji) in preparation.
WORK EXPERIENCE	Graduate Teaching Assistant, Department of Physics & Astronomy, UK, Spring '18 - Spring '21 Responsibilities as Lab Teaching Assistant: instructing students through lab exercises and evaluating student work. Responsibilities as Recitation Teaching Assistant: helping students understand material presented in lecture, holding office hours and evaluating student work. Undergraduate Teaching Assistant, Department of Mathematics, CSB/SJU, Fall '15 - Spring '17 Responsibilities as Teaching Assistant: Evaluating student work and tutoring students at the Mathematics resource center.
RESEARCH TALKS & POSTER PRESENTATIONS	April 2021 - Astronomy Seminar, UK August 2014 - Summer Research for Undergraduates, CSB/SJU