Rev. Dr. Richard A. D'Souza, S.J.
Director, Specola Vaticana and President, Vatican Observatory Foundation

Fr. Richard D'Souza SJ was born in 1978 in Pune, India and hails from Goa, India. His initial school years were spent in Kuwait. From 1990, he moved back to his home state of Goa, India and joined a Jesuit school. After finishing his schooling, he entered the Society of Jesus in 1996, and finished his two years noviciate in Belgaum, India. This was followed by a year of study of the humanities (Junior ate) in Pune. In 2002, he completed his graduation in Physics at St.Xaviers' college in Mumbai and proceeded for his Masters in Physics to the University of Heidelberg, where he worked at the Max Planck Institute for Astronomy for his thesis work. He returned to Pune in 2005 to complete a Bachelors degree in Philosophy. In 2007, he founded and ran the St. Paul's

Community College in Belgaum to help school dropouts find gainful employment. After finishing his Bachelors in Theology in 2011 in Pune, he retuned to Goa and ran a popular theology programme for the laity called "Deepen Your Faith". In 2012, he started his doctoral studies in Astronomy at the Max Planck Institute for Astrophysics, in Garching, Munich, graduating in 2016. In 2016, he formally joined the staff of the Vatican Observatory as well started at the same time a postdoc at the University of Michigan, Ann Arbor. In 2019, he moved to the headquarters of the Vatican Observatory in Castel Gandolfo. Since 2022, he has been serving as the Superior of the Jesuit community attached to the Vatican Observatory.

Research Interests

Fr. Richard D'Souza is interested in studying the formation and evolution of galaxies. In particular, through observations and simulations, he has studied the outer stellar halos of galaxies in order to decipher their accretion histories.

Main publications

D'Souza & Bell, "The Andromeda galaxy's most important merger about 2 billion years ago as M32's likely progenitor", 2018, *Nature Astronomy*, 2, 737; D'Souza & Bell, "The masses and metallicities of stellar haloes reflect galactic merger histories", 2018, *MNRAS*, 474, 5300; D'Souza & Bell, "The infall of dwarf satellite galaxies are influenced by their host's massive accretions", 2021, *MNRAS*, 504, 5270; D'Souza & Bell, "Uncertainties associated with the backward integration of dwarf satellites using simple parametric potentials", 2022, *MNRAS*, 512, 739; Cooper, D'Souza, Kauffmann, Wang, et al. “Galactic accretion and the outer structure of galaxies in the CDM model”, 2013, *MNRAS*, 434, 3348; D'Souza, Kauffman, Wang, Vegetti, “Parametrizing the Stellar Haloes of Galaxies”, 2014, *MNRAS*, 433, 1433; D'Souza, Vegetti, Kauffmann, “The Massive End of the Stellar Mass Function”, 2015, *MNRAS.*, 454, 4027; D'Souza, Rix, “Mass estimates from stellar proper motions: the mass of ω Centauri”, 2013, *MNRAS*, 429, 1887.