Bulletin of the AAS • Vol. 53, Issue 2

Babar Ali (1967–2020)

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Published on: Oct 21, 2021

DOI: 10.3847/25c2cfef.fc3a453e

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**Babar Ali died on Wednesday,
December 30, 2020.**

Babar Ali was born on September 3, 1967, in Rawalpindi, Pakistan. He finished high school in the United States as an exchange student and then earned B.S. degrees in both Physics and Astronomy at the University of Arizona in 1990. As an undergraduate, he worked with Ronald Polidan at the University of Arizona's Lunar and Planetary Laboratory, studying variable stars using data from the Voyager spacecraft and observations he carried out at the Kitt Peak and Mt. Lemmon Observatories.

Credit: [Space Science Institute](#).

Babar was an operator at the U. of A. Steward Observatory 21-inch on-campus telescope and became a popular leader of public observing events during the visit of Halley's Comet in 1986. An avid outdoors person who enjoyed hiking, backpacking, and cycling, his friends and collaborators remember his constant energy, good cheer and warm sense of humor.

As a graduate student at The Ohio State University, Babar worked on near-IR imaging and spectroscopy of young stars in the Orion star-forming region under the supervision of Darren Depoy. He published a 2.2 micron survey of the Orion Nebula Cluster made with the OSIRIS IR camera from the 1.8 meter Perkins Telescope near Delaware, Ohio. He then conducted near-IR spectroscopy to spectral type late-type stars using OSIRIS at CTIO, first developing criteria for determining spectral types of main-sequence stars, and then applying those techniques to young stars in the NGC 2024 region. His thesis, where he grappled with many of the issues of typing young stars such as veiling, extinction and multiplicity, is a pioneering work on what has now become a highly active field.

After completing his Ph.D. in 1996, he did postdoctoral work at the University of Rochester. There he worked on an Infrared Space Observatory (ISO) project with Bill Forrest, John Stauffer, and Sandy Leggett searching for brown dwarfs in the Hyades Cluster with ISOCam. In 1999, Babar moved to the Infrared Processing and Analysis Center (IPAC) in Pasadena. He was initially involved in the implementation of an early

version of the Star & Planet Database, which later evolved into the NASA Exoplanet Archive. He then became a key member of the NASA Herschel Science Center (NHSC) at IPAC, supporting the U.S. users of the Herschel Space Observatory. He helped develop the data processing pipeline and validation software for the PACS instrument and, for a period of time, served as the PACS instrument lead for the NHSC. Babar received NASA Public Service Group Achievement Awards in 2010, 2011, and 2014.

As one of the initial members of the Herschel Orion Protostar Survey team, Babar made many essential contributions to the success of this Herschel key project. His simulations of observations with PACS formed a core argument of the successful Herschel key project proposal. He produced the calibrated images and photometry for the program and made major contributions to the comparison of radiative transfer models of protostars to the photometric data. These efforts led to the first evidence for systematic variations in the properties of protostars across the Orion clouds.

At IPAC, Babar continued to dedicate time to astronomy education and public outreach. He taught introductory astronomy classes at Cerritos College. He was also involved in the NITARP program, a NASA/IPAC program that partners professional astronomers with teachers to conduct one-year research programs.

Babar left astronomy in 2014 for a successful career in data science and machine learning after earning a graduate professional certificate in Data Mining & Applications from Stanford University. He worked for several startups in the Los Angeles area. He was also affiliated as a research scientist with the Space Science Institute.

Babar passed away suddenly while on a walk near his home in December 2020. He is survived by his wife, Kristin Herkstroeter, and two sons, Sekander and Daniyar.