

## Research Highlights – Scott J. Kenyon

Symbiotic star monograph published by Cambridge University Press.

With L. Hartmann, established the basic geometric and physical structure of protoplanetary disks around young stars. Main papers: ‘On the Nature of FU Orionis Stars’ and ‘Spectral Energy Distributions of T Tauri Stars: Disk Flaring and Limits on Accretion’.

With L. Hartmann, pioneered techniques for analyzing the early evolution of Sun-like and other stars. Main paper: ‘Pre-Main Sequence Evolution in the Taurus-Auriga Molecular Cloud.’

With B. Bromley, developed and applied new techniques for calculating the formation and evolution of planetary systems. The code ‘Orchestra’ is one of the world’s leading computer codes for planet formation. Major results include identifying debris disks as signposts of ongoing planet formation, conducting the first calculation of gas giant planet formation with pebble accretion, establishing formation paths for Pluto’s small satellites, and demonstrating that debris disks around white dwarfs are rings of solids orbits just inside the Roche limit. Main papers: ‘Dusty Rings: Signposts of Recent Planet Formation,’ ‘Detecting the Dusty Debris of Terrestrial Planet Formation,’ ‘Variations on Debris Disks: Icy Planet Formation at 30–150 AU for 1–3  $M_{\odot}$  Stars,’ ‘The Formation of Pluto’s Low Mass Satellites,’ ‘Numerical Simulations of Collisional Cascades at the Roche Limits of White Dwarf Stars,’ and ‘A Pluto–Charon Concerto II. Formation of a Circumbinary Disk of Debris After the Giant Impact.’

With J. Najita, investigated the mass budget of proto-planetary disks and the origin of the lack of warm infrared excesses in young stars. Main paper: ‘The Mass Budget of Planet Forming Discs: Isolating the Epoch of Planetesimal Formation’.

With W. Brown, M. Geller, and M. Kurtz, co-discovered hypervelocity stars. With B. Bromley, developed numerical simulations to enable probes of Galactic