

Debra Fischer is a professor of Astronomy at San Francisco State University. Her research is centered on the detection and characterization of planets orbiting other stars. Since 1997, she has participated in the discovery of more than 150 planets, working with colleagues Geoff Marcy (UC Berkeley), Paul Butler (Carnegie Institution) and Steve Vogt (UCSC). Working with colleague Jeff Valenti (Space Telescope Science Institute) she has modeled spectra of stars on planet search programs at Lick Observatory, Keck Observatory, the Anglo-Australian Observatory, demonstrating a strong correlation between the chemical composition of stars and the presence of gas giant planets.

Fischer is the principal investigator (PI) on several projects including:

1. The Lick Planet Search program
2. Keck program to detect the presence of Hot Jupiters “N2K”
3. Keck program to detect the presence of short-period Neptunes
4. Keck program to survey for planets orbiting low mass M dwarf stars “M2K”
5. CTIO program in Chile to search for earthlike planets around alpha Cen A and B
6. Multi-planet modeling project for JPL / NASA to use astrometric and Doppler data sets
7. Spectral synthesis modeling of main sequence FGK stars

Fischer has written computer programs to model Keplerian orbits in star, including multi-planet systems with both radial velocity data and astrometric data. She has also written computer programs to analyze stellar spectra to determine time series radial velocity measurements. She is the author of more than 100 professional, refereed papers.