Light from distant stars carries with it the secrets of origins – the origin of the infant universe, the origins of planets, stars and galaxies, the origins of mysterious phenomena like black holes. The Gran Telescopio Canarias will gather this achingly faint light like few other telescopes on the planet, but it is only a gatherer. Unburdening this light of its mysteries requires astronomical instruments as precise and technologically advanced as the telescope itself.

Astronomers at the University of Florida designed and built the latest such instrument: A state-of-the-art camera called CanariCam. This heat-sensing camera “sees” the infrared light emitted by the universe’s youngest stars and planets. It also sees light that, in its visible form, is obscured by dust and gas clouds. CanariCam is unique in its ability to determine the direction of polarized light and block very bright light from stars. That gives the instrument the ability to probe the mysterious role of magnetic fields in planet and star formation – and reveal new planets that are small, cool and hard to find with other methods.

The size of an automobile engine, CanariCam will be the second instrument installed on the Gran Telescopio Canarias, becoming operational in 2010. Whether it reveals new insights into the disks that surround natal stars, new understanding of how magnetism sways planetary origins, or never-before-seen planets, the world awaits a sharper view of its cosmic origins.
The University of Florida is Florida’s largest university and a major national research institution. A member of the Association of American Universities, UF offers more than 300 degree programs through 16 colleges. UF’s scientists and scholars receive more than $500 million annually in sponsored research funding and regularly author papers appearing in Science, Nature, the New England Journal of Medicine and other prestigious scientific journals. With more than 51,000 students and 14,000 faculty and staff worldwide, UF contributes approximately $6 billion annually to Florida’s economy through research and other activities.