

平成 18 年 3 月 6 日

応用物理学会北海道支部
会員各位

応用物理学会北海道支部

講演会のお知らせ

下記講演会を開催いたしますので、多数ご参加下さいますようご案内申し上げます。

演題：FRIDA: Integral Field Spectrograph and Imager for the Gran Telescopio Canarias

講師：Salvador CUEVAS 氏

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日時：平成 18 年 3 月 20 日(月) 13:30 ~ 14:45

場所：北海道大学工学部物理工学系会議室 I (A3-62)

主催：応用物理学会北海道支部

講演の要旨

FRIDA (inFRared Imager and Dissector for Adaptive optics) is an instrument devised for exploiting the AO-corrected beam of the Gran Telescopio Canarias Adaptive Optics system (GTCAO). FRIDA project is a collaborative effort among the National Autonomous University of Mexico (UNAM), the University of Florida (UF), and the Astrophysics Institute of Canaries (IAC), the Complutense University in Madrid, Spain and the Observatory of the South and Pyrénées (France).

FRIDA is designed to be installed at the Nasmyth platform, behind the GTCAO system, and will cover the 0.9-2.4 microns wavelength range. This instrument is fully cryogenic. It will perform direct imaging mode and Integral Field spectroscopy (IFS) on the same Hawaii II detector (2048x2048, 18 microns/pixels). For direct imaging mode, FRIDA provides broad and narrow band imaging capabilities with Nyquist sampling of 0.010 arcsec/pixel and 0.020 arcsec/pixel. The corresponding fields of view are 20.48X20.48 arcsec and 40.96X40.96 arcsec, respectively. FRIDA provides IFS with “coarse” spaxels (0.02 x 0.04 arcsec) and “fine” spaxels (0.01 x 0.02 arcsec) modes, the longer dimension corresponding to the slice width. The Integral field unit (IFU) format is 65 pixels by 30-slices. The IFU design is based on the U. of Florida FISICA IFU (Eikenberry et al., 2004) employing diamond turned aluminum mirrors (monolithic or stacked). The available spectra

l resolutions are $R \sim 500$, using a double pass reflective prism; $R \sim 5000$, using gratings;

$R \sim 30,000$ using astigmatism corrected gratings.

FRIDA installation at the GTC telescope is foreseen for 2009.

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