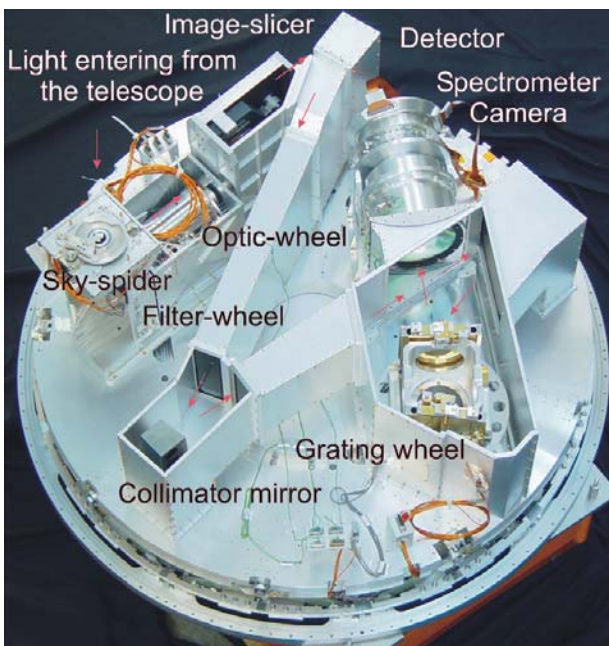




SPIFFI is the Near Infrared Integral Field Spectrometer for the VLT. Here report on the first light of the SPIFFI visitor instrument at the ESO VLT in March 2003, and the successful installation as part of the adaptive optics assisted SINFONI facility in July 2004. Amongst others, the highlights of the two observing periods in 2003 and 2004 include the first geometric distance measurement of the Galactic Center, the first infrared spectrum of its flaring black hole, the unprecedented spatially resolved spectroscopy of the Circinus galaxy and NGC 6240, and spatially resolved kinematics and abundance estimates of high-redshift submillimeter and UV selected galaxies.



SPIFFI provides imaging spectroscopy of a contiguous, two-dimensional field of  $64 \times 32$  spatial pixels in the wavelength range from  $1.1 - 2.45 \mu\text{m}$  at a resolving power of 2000 to 4000. As a result, the instrument delivers a simultaneous, three-dimensional data-cube with two spatial dimensions and one spectral dimension. The left picture shows an inside view of SPIFFI: The telescope focal plane is re-imaged and magnified onto the so-called image slicer which rearranges the two-dimensional field into a pseudo-long slit for subsequent dispersion in the spectrometer equipped with the most recent Rockwell HAWAII  $2k \times 2k$  array. The right picture shows the SINFONI facility installed at the ESO VLT. The blue cylinder hosts the ESO built adaptive optics module MACAO, the Aluminium cylinder is the SPIFFI cryostat. Scientific highlights of the commissioning and observing runs in 2003 and 2004 are presented separately in dedicated poster abstracts of this booklet: The first geometric distance measurement of the Galactic centre and spectroscopic classification of the early type stellar population in the immediate vicinity of the Galactic Center, the first infrared spectrum of its flaring black hole, unprecedented spatially resolved spectroscopy of NGC 6240 and the Circinus galaxy, and spatially resolved kinematics and abundance estimates of high-redshift submillimeter and UV selected galaxies.

#### References:

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