



NOVA

“NOVA develops innovative astronomical instrumentation for optical, infrared and TeraHerz observatories on earth and in space.”



About us

Astronomy is a high-tech, fundamental science with a large public appeal, driven by the combination of human ingenuity and technological development. NOVA, the Netherlands Research School for Astronomy, is a federation of universities in the Netherlands focused on astronomy (universities of Amsterdam, Leiden, Groningen and Nijmegen). NOVA's mission is to conduct scientific research at the highest international level and to train the next generation of astronomers.

Advances in astronomical research are enabled by development of state-of-the-art scientific instrumentation for the world's largest telescopes. These telescopes are operated by international consortia or treaty organizations such as ESA / NASA and the European Southern Observatory (ESO) for which NOVA functions as its Dutch national base.

Solutions

- Optics: Direct polished aluminum & glass optics <60cm
- Spectral testing 200nm - 40µm...
- Surface Figure Wave Front Error testing <1nm...
- ...in combination with Vacuum Cryogenic facilities <20K
- CNC 5-axis milling (GROB G750) <1.3m
- CMM (Zeiss Prismo) <±0.5-1.3 µm accuracy...
- ...in Cleanroom ISO class 6 & <0.5K temperature stability

Company highlights

NOVA developed the Mid InfraRed Instrument Spectrometer Main Optics for the James Webb Space Telescope. This scientific module comprises of 2 structures, containing 14 mirrors and 12 gratings to create 4 different Integral Field Unit spectrometers, operating from 5µm to 29µm wavelength.

Company facts

- 4 research universities
- 3 instrumentation groups
- >25 years experience

Scientific Instrumentation

- 4 x Very Large Telescope
- 2 x Very Large Telescope Interferometer
- 3 x 66 ALMA receivers: band 2-3, band 5 & band 9
- 4 x Extremely Large Telescope (under development)

Space Instrumentation

- JWST MIRI SMO
- Optics for TROPOMI, PACE
- Data Center for GAIA & Euclid



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Connect

