



Optical Designer

Job description:

As an experienced Optical Designer at NOVA you will be responsible for the functionality of the optical design of astronomical instrumentation. This can be a spectrograph or infrared camera for the European Extremely Large Telescope (E-ELT), or another type of instrument, such as an interferometer or polarimeter for other observatories. You will perform the design of optical systems and analyze the performance of these designs. Your work is done in close collaboration with project managers, systems engineers, mechanical designers and optical engineers.

You will get to work on cutting edge technologies and innovative scientific instruments.

Your duties and responsibilities consist of Optical design and analysis of a system or subsystem, including:

- Optical architecture and optical design
- Optical subsystem requirements
- Optical interfaces, of (sub)systems in the instrument
- Participate in system trade-off studies
- Optical performance analysis
- Determine and keep track of technical performance measures for the instrument
- Create and maintain error budgets and tolerance budgets
- Stray light analysis
- Assess Technical risks
- Specify requirements for optical components
- Participate in Procurement of optics
- Participate in Inspection, Testing, Integration and Alignment of optical systems
- Participating in regular project meetings
- Writing documentation

Job requirements:

- Extensive experience in Design and Analysis using Zemax or Code V
- Proficient oral and written communications skills
- An academic degree or equivalent knowledge

Important Additional skills:

- Experience in the design of spectrographs
- Experience with infrared systems
- Experience with polarization analysis systems
- Experience with telescopes or affinity with astronomy
- Affinity with testing of optical systems

Location:

The preferred location for this job is the NOVA Optical Infrared Instrumentation group at ASTRON in Dwingeloo. Alternatively Leiden University could be used as home base, with regular travel to the NOVA Optical Infrared Instrumentation group at ASTRON in Dwingeloo. There is occasional travel to international partners, mainly within Europe.