



INVERSION OF OPTICAL PATH DIFFERENCES OF AN ECHELETTE INTERFEROMETER

Innovative metrology process for measuring optical path differences in a static interferometer

Technological benefits

A powerful and innovative technology

Fast and reliable measurements

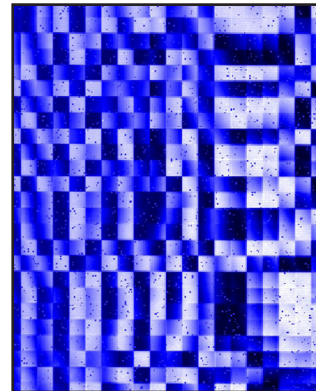
High-resolution technology: accuracy on the scale of a nm

Adapts to all spectroscopic ranges

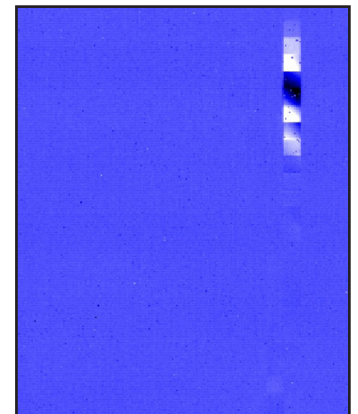
A simple and reliable technology

Use of a single non-tunable laser

No mirror displacement required



Laser



Uniform field

Invention overview

Optical path difference (OPD) inversion process for a static interferometer based on the acquisition of a single laser image.

Use of correlations between the OPDs generated by the echelette mirror geometry: each facet is formed by a "line" path and a "column" path.

Potential applications

Echelette interferometer metrology with optimised sampling

Space-qualified device for space platforms or automatic stations

Commercial benefits

Enhanced performance

Fast measurements, high accuracy

Can be used for all spectral ranges

Optimised process

Does not require tunable laser

Robust instrument

Patented invention, available under license