Fourier Optical Analysis of GRIN Array Imaging

**Objectives**
- Fourier optical imaging theory
- Improve the depth of field
- Analyze misalignment
- Analyze and correct aberrations

**Approach**

**Theory**
Fourier optics analysis coupled with geometrical optics for both a single GRIN rod and GRIN array

**Experiment**
Measure LSF, MTF and Fourier transform pattern

**Results**
- GRIN lens system is analyzed by Fourier optics
- PSF for a single GRIN rod and the whole array
- GRIN lens has Fourier transform planes (6;4)
MEASUREMENT OF LSF AND MTF

- Knife edge as the object
- Production quality test (misalignment)