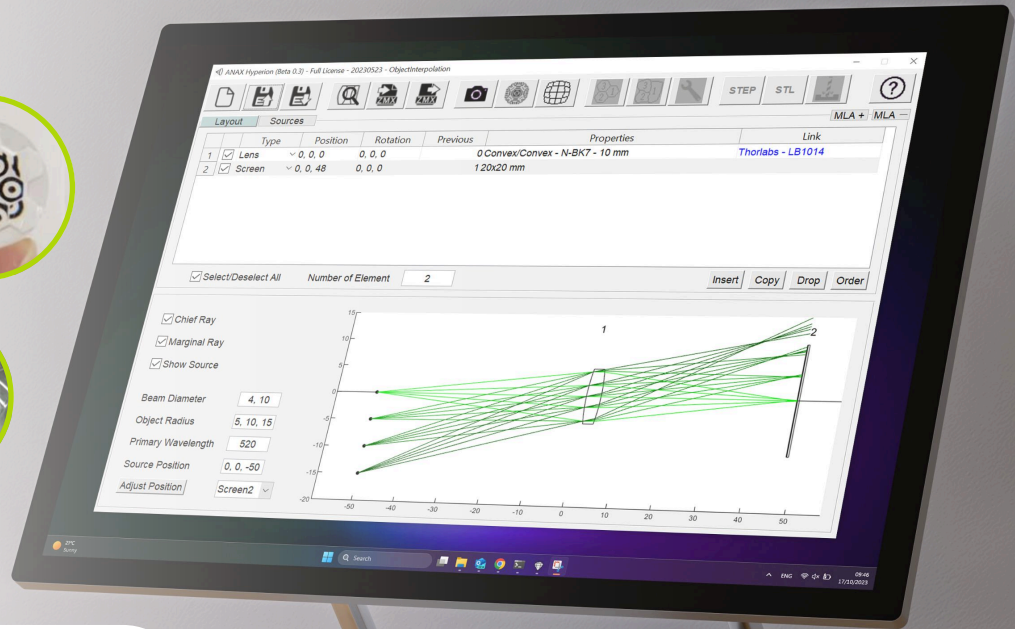


# Optical Design Made Simple



## Anax Hyperion™

Anax Hyperion™ gives you the power to design and simulate optical systems without the need for prior knowledge of optics

### Why choose Anax Hyperion™?

Suitable for absolute beginners in optics

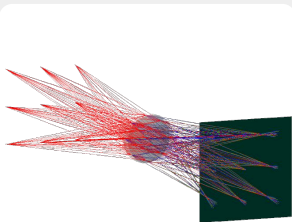
- Simple and intuitive graphical user interface
- Design and simulate a system in a few easy steps
- Low investment cost, but powerful design capabilities
- Design optical systems from lens catalogs
- Export your optical systems to STEP, STL or even CNC

### Software Features

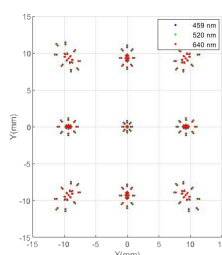
Simple user interface with few buttons!

- Optical elements table
- Light sources table
- System layout plot
- Catalog of more than 600 lenses (Edmund Opt., Thorlabs, ...)
- Catalog of more than 1 500 lens materials (Ohara, Schott, ...)

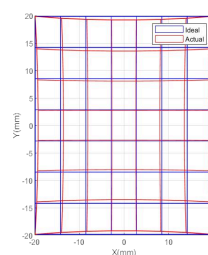
#### RAY TRACING SIMULATION



#### SPOT DIAGRAM



#### DISTORTION DIAGRAM



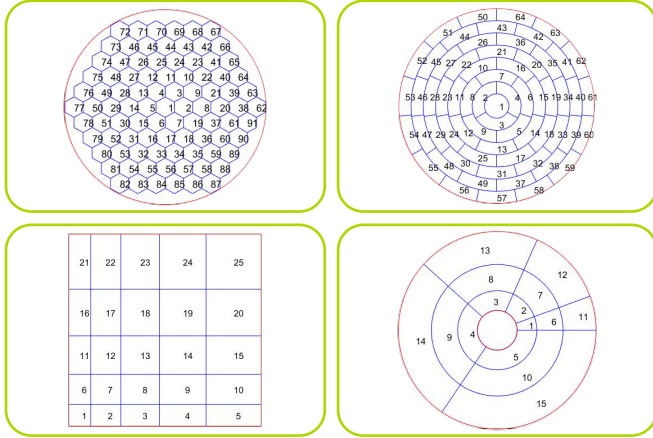
#### IMAGE SIMULATION



# Lens Array Module

## Geometric Lens Arrays

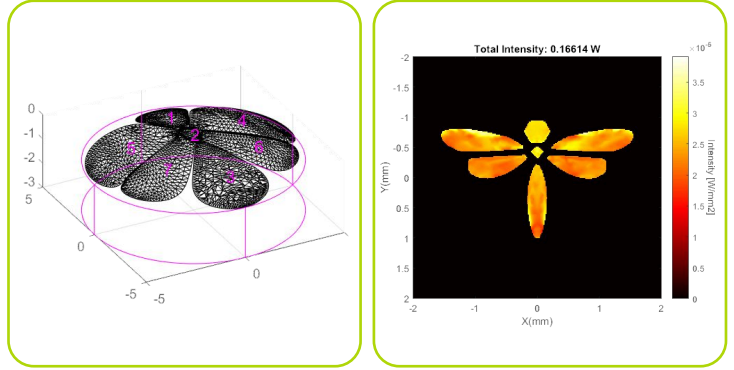
- Generate regular and non-regular lens arrays
- Hexagonal, annular, rectangular segments
- Define light input/output for each segment, and get the surface shape in 1-click!



Example of geometric segments layouts

## Topological Lens Arrays

- Produce complex illumination patterns with topological lens arrays
- Import the illumination pattern from raster graphic files
- Segment layout and surface shapes computed automatically

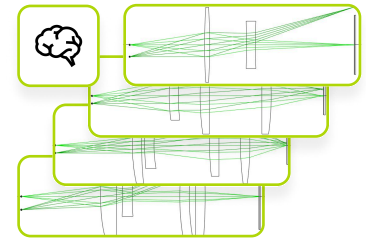


Topological lens array generated by automatic construction

Simulation of resulting illumination pattern

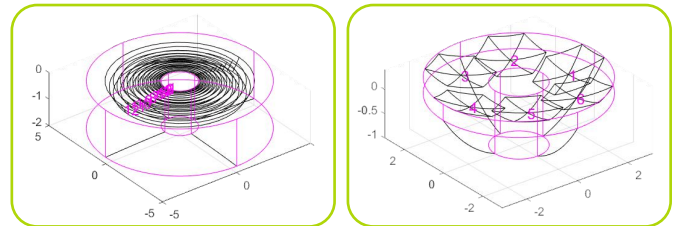
## AI Module

- Proposes optical layouts for a given focal length, numerical aperture and field of view
- Adjustable parameters including lens assembly size, number of elements and total cost
- Choice of fully custom and/or catalog lenses in the generated design



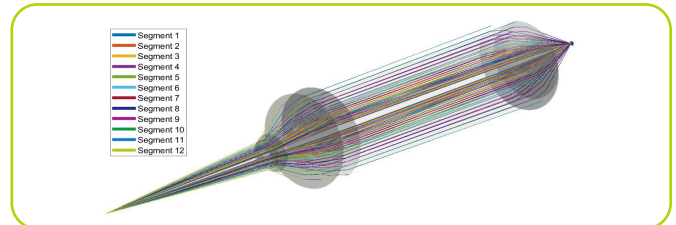
## Typical Case Studies

- **Case 1**  
University researcher A wants to design a new non-contact thermometer that measures temperature at different distances from a heat source. Combining a multi-focal lens array and aspheric condenser lens in the software, the resulting optical system can measure temperature with  $\sim 0.1^\circ\text{C}$  accuracy.
- **Case 2**  
Company engineer B wants to design a new microscope objective for a micro-fluidic experiment, that will allow him to measure the velocity of particles moving in three dimensions. The automatically generated geometric lens array allows simultaneous acquisition of images from 6 slicing planes.



Multi-focal lens array (Case 1)

3D imaging lens array (Case 2)



Ray tracing of composite lens system (Case 1)

## About Us

ANAX Optics was established in 2022 as design and provider of Micro Lens Array (MLA). We provide optical system design and fabrication methods, collaborating with international ultra-precision manufacturing partners.



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