

Specifically designed for HASO™ wavefront sensors, WaveView can be used by both beginners and experts. Behind the ergonomic interface, powerful functionality (more than 150 features) unique to the HASO™ series awaits for you.

Using only one program, you can measure phase and intensity simultaneously and independently. Each user can customize the WaveView screen layout and import or export data in several formats.



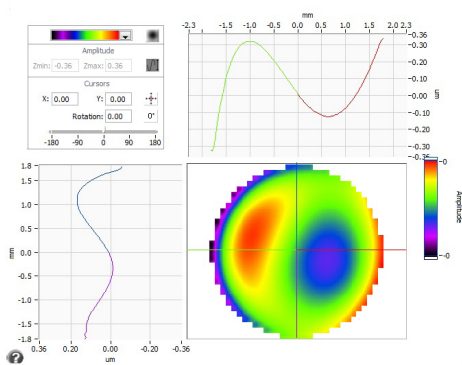
WITH WAVEVIEW, YOU CAN

- PERFORM ZONAL AND MODAL WAVEFRONT RECONSTRUCTION
- VIEW THE RAW CAMERA DATA
- DISPLAY WAVEFRONT AND INTENSITY MAPS
- MODIFY VARIOUS ALGORITHM SETTINGS
- ACTIVATE OPTIONS TO SIMULATE WAVE PROPAGATION AS THE POINT SPREAD FUNCTION (PSF), STREHL RATIO, MODULATION TRANSFER FUNCTION (MTF) AND ADVANCED LASER PARAMETER M^2
- RECONSTRUCT A FULL-PUPIL WAVEFRONT EVEN WITH RANDOM OBSTRUCTIONS

WAVEFRONT ANALYSIS

Wavefront reconstruction

Wavefront reconstruction by either Zonal or modal methods from computed local slopes*



Modal coefficients

Displaying coefficients that result from the projection of slopes* on the bases of Zernike or Legendre polynomials

N°	Equation	Name	Value (um)
1	$p \cos(\theta)$	Tilt at 0°	-43.0665
2	$p \sin(\theta)$	Tilt at 90°	6.2828
3	$2p^2 - 1$	Focus	13.5711
4	$p^2 \cos(2\theta)$	Astigmatism at 0°	-0.5241
5	$p^2 \sin(2\theta)$	Astigmatism at 45°	-1.5963
6	$(3p^2 - 2)p \cos(\theta)$	Coma at 0°	-0.1700
7	$(3p^2 - 2)p \sin(\theta)$	Coma at 90°	-0.2304
8	$6p^4 - 6p^2 + 1$	3th order spherical aberration	-0.0879

Throughout Shack-Hartmann formalism, local slope* is defined as the tangent of the angle between the wavefront and a theoretical perfect plane located on the principal object plane of the microlens matrix

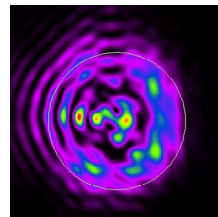
SOFTWARE OPTIONS

PSF

Encircled energy calculation

Strehl ratio

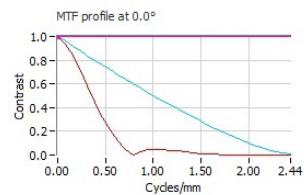
Comparing the actual maximum intensity at the focal plane to a perfect theoretical distribution of intensity without aberrations



MTF

Representing MTF as a curve, using contrast to indicate the spatial frequency in a given direction

Calculating for all directions at the same time



M²

Calculating the propagation of the electromagnetic field at different planes

Reconstructing the envelope of propagation

Providing information on the waist and divergence of the beam or in a given direction