

アプリケーション_RSI.009: ドーナツモードの解析

局所的に偏光するハイブリッド・レーザーモードの発生を解説します

キーワード: Polarization、偏光、Hybrid Laser Modes、ハイブリッド・レーザーモード、Propagation

必須ツールボックス: Starter Toolbox Basic



アジマスモード: ガウシアンモードの設定-1

Edit Gaussian Wave

Basic Parameters | Spectral Parameters

Spatial Parameters | Polarization | Mode Selection | Sampling

Generate Cross Section

Hermite Gaussian Mode

1D Gaussian Variation (X-Dimension)

Order: 0 x 1

M² Parameter: 1 x 3

Reference Wavelength (Vacuum): 532 nm

Select Achromatic Parameter:

Waist Radius (1/e²): 100.79 μm x 174.57 μm

Half-Angle Divergence (1/e²): 0.096243° x 0.1667°

Rayleigh Length: 60 mm x 60 mm

Astigmatism

Offset between y- and x-Plane: 0 m

Copy from Calculator | Copy to x- and y-Values

Default Parameters | Ok | Cancel | Help

Edit Gaussian Wave

Basic Parameters | Spectral Parameters

Spatial Parameters | Polarization | Mode Selection | Sampling

Polarization Input

Type of Polarization: Linearly Polarized

Angle: 0°

Normalized Jones Vector

$$\begin{pmatrix} J_x \\ J_y \end{pmatrix} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

Default Parameters | Ok | Cancel | Help

アジマスモード: ガウシアンモードの設定-2

Edit Gaussian Wave

Basic Parameters | Spectral Parameters

Spatial Parameters | Polarization | Mode Selection | Sampling

Generate Cross Section

Hermite Gaussian Mode

1D Gaussian Variation (X-Dimension)

Order: 1 x 0

M² Parameter: 3 x 1

Reference Wavelength (Vacuum): 532 nm

Select Achromatic Parameter:

Waist Radius (1/e²): 174.57 μm x 100.79 μm

Half-Angle Divergence (1/e²): 0.1667° x 0.096243°

Rayleigh Length: 60 mm x 60 mm

Astigmatism

Offset between y- and x-Plane: 0 m

Copy from Calculator | Copy to x- and y-Values

Default Parameters | Ok | Cancel | Help

Edit Gaussian Wave

Basic Parameters | Spectral Parameters

Spatial Parameters | Polarization | Mode Selection | Sampling

Polarization Input

Type of Polarization: Linearly Polarized

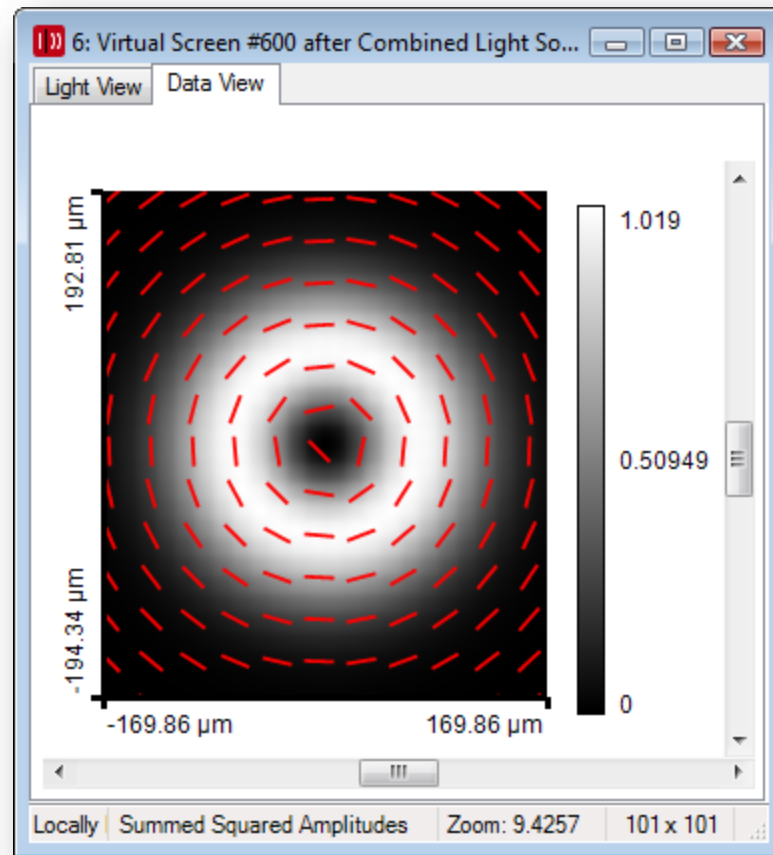
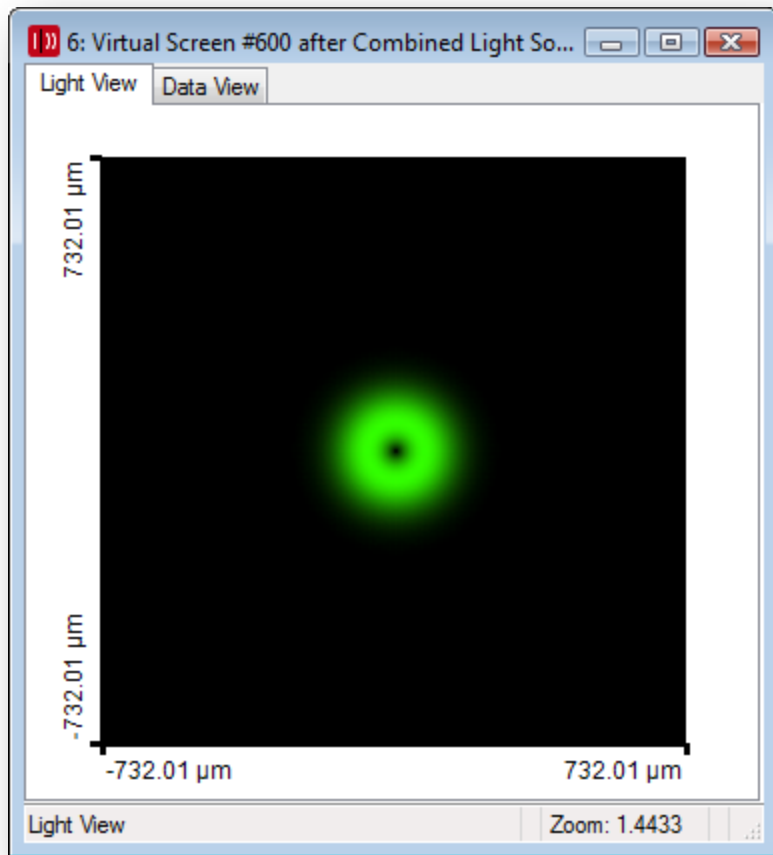
Angle: -90°

Normalized Jones Vector

$$\begin{pmatrix} J_x \\ J_y \end{pmatrix} = \begin{pmatrix} 0 \\ -1 \end{pmatrix}$$

Default Parameters | Ok | Cancel | Help

モード 1 + モード 2 (合算光源)



ラジアルモード: ガウシアンモードの設定-1

Edit Gaussian Wave

Basic Parameters | Spectral Parameters

Spatial Parameters | Polarization | Mode Selection | Sampling

Generate Cross Section

Hermite Gaussian Mode

1D Gaussian Variation (X-Dimension)

Order: 0 x 1

M² Parameter: 1 x 3

Reference Wavelength (Vacuum): 532 nm

Select Achromatic Parameter:

Waist Radius (1/e²): 100.79 μm x 174.57 μm

Half-Angle Divergence (1/e²): 0.096243° x 0.1667°

Rayleigh Length: 60 mm x 60 mm

Astigmatism

Offset between y- and x-Plane: 0 m

Copy from Calculator | Copy to x- and y-Values

Default Parameters | Ok | Cancel | Help

Edit Gaussian Wave

Basic Parameters | Spectral Parameters

Spatial Parameters | Polarization | Mode Selection | Sampling

Polarization Input

Type of Polarization: Linearly Polarized

Angle: 90°

Normalized Jones Vector

$$\begin{pmatrix} J_x \\ J_y \end{pmatrix} = \begin{pmatrix} 0 \\ 1 \end{pmatrix}$$

Default Parameters | Ok | Cancel | Help

ラジアルモード: ガウシアンモードの設定-2

Edit Gaussian Wave

Basic Parameters | Spectral Parameters

Spatial Parameters | Polarization | Mode Selection | Sampling

Generate Cross Section

Hermite Gaussian Mode

1D Gaussian Variation (X-Dimension)

Order: 1 x 0

M² Parameter: 3 x 1

Reference Wavelength (Vacuum): 532 nm

Select Achromatic Parameter:

Waist Radius (1/e²): 174.57 μm x 100.79 μm

Half-Angle Divergence (1/e²): 0.1667° x 0.096243°

Rayleigh Length: 60 mm x 60 mm

Astigmatism

Offset between y- and x-Plane: 0 m

Copy from Calculator | Copy to x- and y-Values

Default Parameters | Ok | Cancel | Help

Edit Gaussian Wave

Basic Parameters | Spectral Parameters

Spatial Parameters | Polarization | Mode Selection | Sampling

Polarization Input

Type of Polarization: Linearly Polarized

Angle: 0°

Normalized Jones Vector

$$\begin{pmatrix} J_x \\ J_y \end{pmatrix} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

Default Parameters | Ok | Cancel | Help

モード 1 + モード 2 (合算光源)

