**Asymmetry in LF images generated with BirTomo**

Using a volume with three birefringent voxels defined in an HDF5 file, I noticed an asymmetry in its light field image generated when using the BirTomo code in the main branch on GitHub. Files and folders described here, including this MSWord file, are available at  
[https://github.com/PolarizedLightFieldMicroscopy/BirTomo/blob/main/data/2025\_04/Voxels/Simulation Data](https://github.com/PolarizedLightFieldMicroscopy/BirTomo/blob/main/data/2025_04/Voxels/Simulation%20Data)

I illustrate the asymmetry with light field images computed with BirTomo using a small volume with three, positive birefringent voxels and slow axis orientations parallel to Z-, X-, and Y-axis:

A graph of a cube with red dots

AI-generated content may be incorrect. A cube with lines and numbers

AI-generated content may be incorrect.

The corresponding .h5 file is   
ThreeVoxBirCtrPosXPosYPosZ\_Feb20.h5 (see optical\_info/description for more details)

The light field images were computed using the files simulation\_voxels.py in the examples folder and the optical\_config\_voxels.json in the config folder of the BirTomo main branch. The number of pixels per microlens were set to either 16 or 17. The images on the next page show the resultant azimuth light field images of the above volume.

“pixels\_per\_ml” : 16 “pixels\_per\_ml” : 17  
A black background with white dots

AI-generated content may be incorrect. A black background with white circles and dots

AI-generated content may be incorrect.

Both computed azimuth images, one with 16 pixels per microlens and the other with 17, show the same asymmetric pattern behind the central microlens and the adjacent microlenses left and right and up and down.

The corresponding TIFF files of those images are in folder [LF Images BirTomo](https://github.com/PolarizedLightFieldMicroscopy/BirTomo/tree/main/data/2025_04/Voxels/Simulation%20Data/LF%20Images%20BirTomo), which is a subfolder to the above folder.

“pixels\_per\_ml” : 16  
File: ThreeVoxBirCtrPosXPosYPosZ\_Feb20-h5\_Apr05\_20x04\_75\_16Azim.tif

“pixels\_per\_ml” : 17  
File: ThreeVoxBirCtrPosXPosYPosZ\_Feb20-h5\_Apr05\_20x04\_75\_17Azim.tif