

Tutorial 5: Generating *in-silico* microscopy image with different hues

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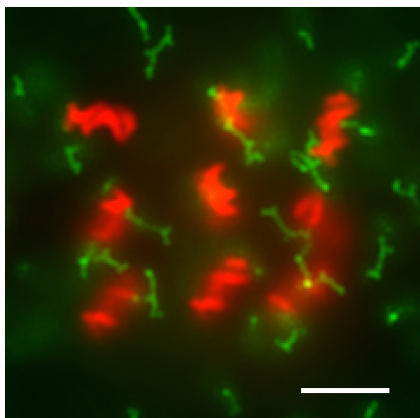
The monochrome image intensities generated in **Tutorial 1** (`img100_lam670_fs800.dat` and `img100_lam518_fs800.dat`) is used to demonstrate the use of different hues. First, the microscopy image is generated with red (0°) and green (120°) hues using the command,

```
Tut2$ siliscopy plot --file img --paramfile param_rg.dat --method  
color --timestep 100 --calc specific --output img_rg_
```

It reads the image intensity files created in **Tutorial 1** and reads the following variables from `param_rg.dat`,

- `fs = 800`
- `lam[i] = 670, 518`
- `lam_I0_[i] = 0.13, 0.25`
- `lam_hue[i] = 0, 120`
- `dlnm = 0.1, 0.1, 0.2`
- `maxlen = 0.25, 0.25, 0.25`
- `T = 1`
- `scale = 5`
- `dpi = 600`
- `opt_axis = 2`

This generates the following image `img_rg_100_fs800_T1_I_0.13_0.25.jpeg`,



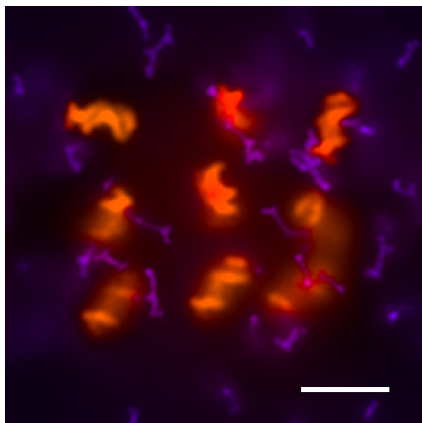
Second, the microscopy image is generated with orange (30°) and violet (270°) hue using the command,

```
Tut2$ siliscopy plot --file img --paramfile param_ov.dat --method  
color --timestep 100 --calc specific --output img_ov_
```

It reads the image intensity files created in **Tutorial 1** and reads the following variables from `param_rg.dat`,

- `fs = 800`
- `lam[i] = 670, 518`
- `lam_I0_[i] = 0.13, 0.25`
- `lam_hue[i] = 30, 270`
- `dlnn = 0.1, 0.1, 0.2`
- `maxlen = 0.25, 0.25, 0.25`
- `T = 1`
- `scale = 5`
- `dpi = 600`
- `opt_axis = 2`

This generates the following image `img_ov_100_fs800_T1_I_0.13_0.25.jpeg`,



Third, the microscopy image is generated with cyan (180°) and magenta (300°) hue using the command,
m

```
Tut2$ siliscopy plot --file img --paramfile param_cm.dat --method  
color --timestep 100 --calc specific --output img_cm_
```

It reads the image intensity files created in **Tutorial 1** and reads the following variables from `param_rg.dat`,

- `fs = 800`
- `lam[i] = 670, 518`
- `lam_I0_[i] = 0.13, 0.25`
- `lam_hue[i] = 180, 300`
- `dlnn = 0.1, 0.1, 0.2`
- `maxlen = 0.25, 0.25, 0.25`
- `T = 1`
- `scale = 5`
- `dpi = 600`
- `opt_axis = 2`

This generates the following image `img_cm_100_fs800_T1_I_0.13_0.25.jpeg`,

