**Research Focus**: Using learning approach to perform SIM reconstruction.

**Methodology**:

- Traditional structured illumination microscopy (SIM) is manually calculated and concatenated, combined with wiener deconvolution.
- A simple neural network of initializing a picture, rendering it through a forward process, and training on loss is conducted to get a high resolution single picture.

**Performance**: Can outperform traditional method of deconvolution.

**Further Progress**: Combine with generative models, and accept fewer than 9 pictures.

{% include figure.html path="assets/img/SIM_model.jpg" title="example image" class="img-fluid rounded z-depth-1" %}
It's the overall model of this work.