**8102 Lab 3** Yue Lin

**Assignment Ⅰ**

The plots of kernel estimation with σ = 0.05 and σ = 0.1 are shown in Figure 1. As the value of σ increases, the output trend tends to be smoother, and the overall estimated values decrease as well.

A picture containing indoor, sitting, electronics

Description automatically generated

Figure 1. Plots of kernel estimation with σ = 0.05 and σ = 0.1, respectively.

**Assignment Ⅱ**

The plots of *Ghat*, *Fhat*, *Khat*, and *Lhat* for Japanese pine saplings dataare shown in Figure 2 and Figure 3.

A close up of a map

Description automatically generated

Figure 2. Ghat and Fhat for Japanese pine saplings data (without specifying xlim argument).

A screenshot of a cell phone

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Figure 3. Khat and Lhat for Japanese pine saplings data (without specifying xlim argument).

**Assignment Ⅲ**

The plot of *Ghat* and *Fhat* with simulating bounds for Japanese pine saplings data is shown in Figure 4.

A close up of a map

Description automatically generated

Figure 4. Plot of Ghat and Fhat with simulating bounds for Japanese pine saplings data.

**Assignment Ⅳ**

The plot of *Khat* with simulating bounds for Japanese pine saplings data is shown in Figure 5.

A close up of a map

Description automatically generated

Figure 5. Plot of Khat with simulating bounds for Japanese pine saplings data.

**Assignment Ⅴ**

A picture containing indoor, sitting, object

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