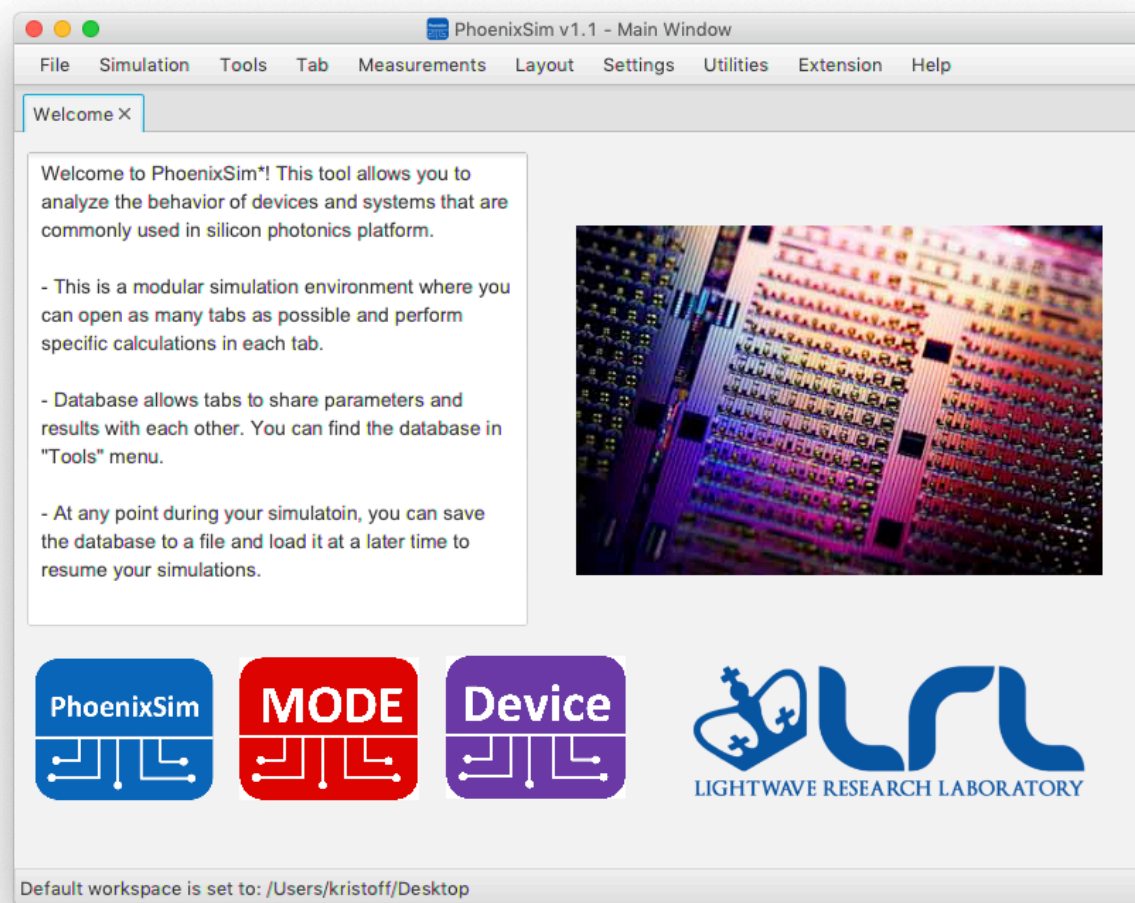# PhoenixSim Example Instruction

System requirements

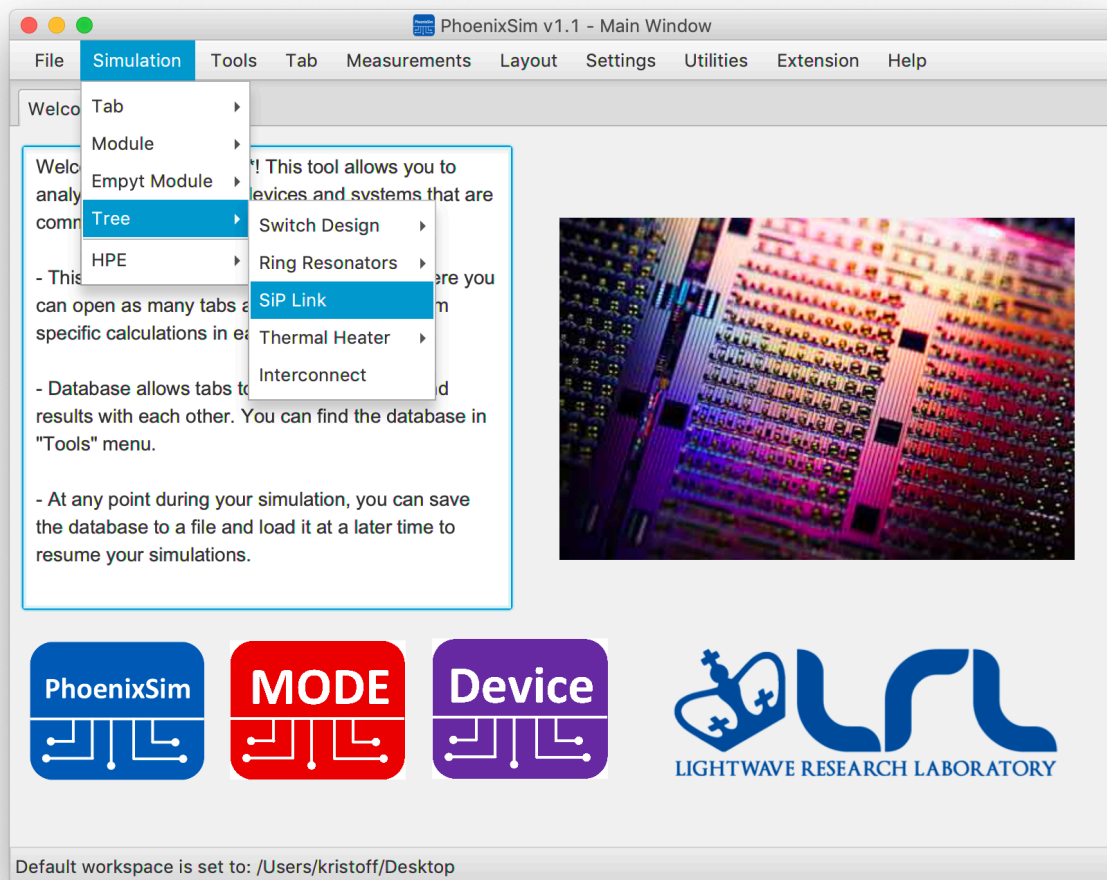Operating system: Windows 7 or later; Mac OS X; Linux.

Prerequisites: please make sure that your system default Java version is **Java 8**.
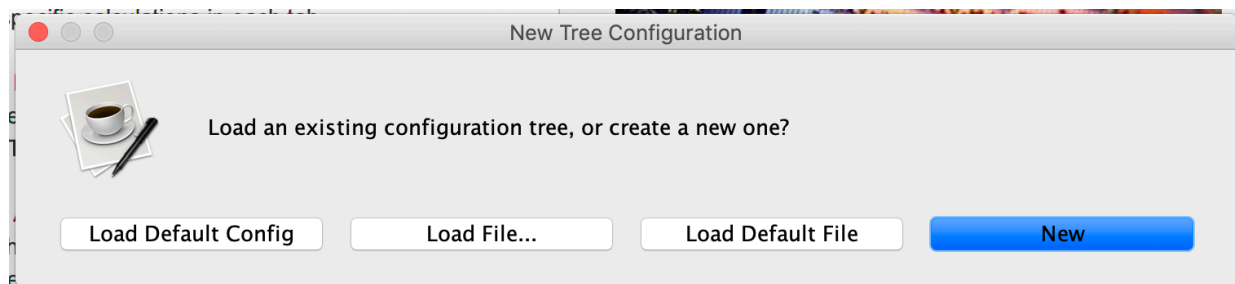
Running a simulation from PhoenixSim

This is the main window of PhoenixSim:

To start a photonic link simulation, simply click **Simulation** from the menu bar, then **Tree** —> **SiP Link**

In a pop-up dialog, click **Load File...**

Then select the pre-defined experiment file "SiP_Link_10x80.tree", select **Open**.
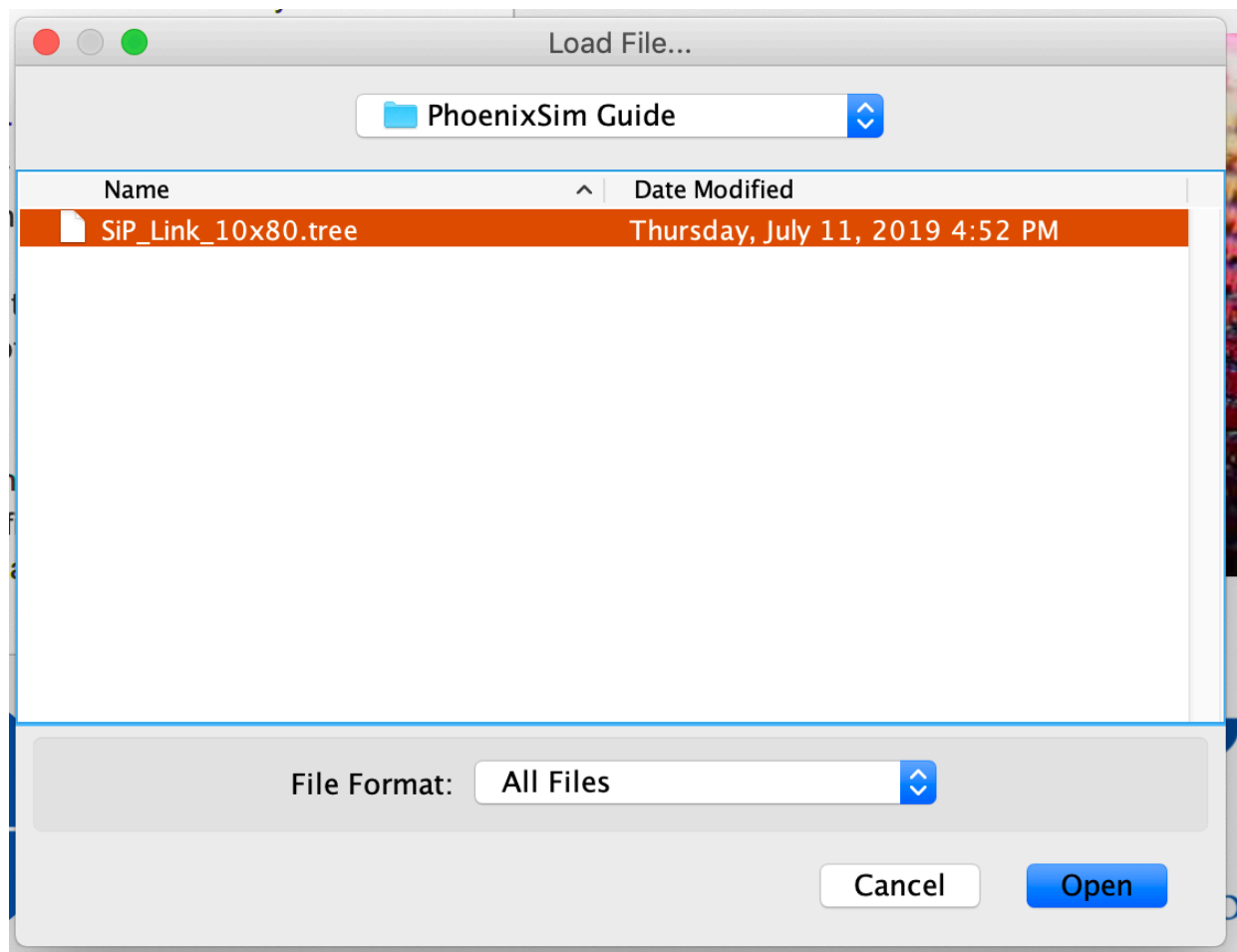
After successful loading, you'll see a tree containing all the simulation models. To expand a node container you can simply click the small black dot, or click the **Deploy Tree** in the upper right corner to expand all the node containers.

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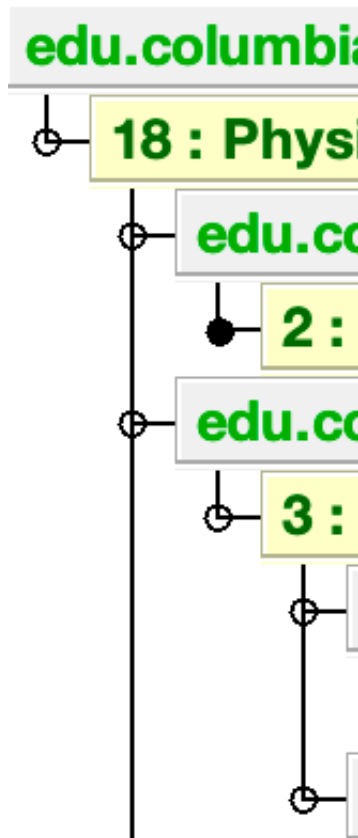Save   Save As...   Deploy tree

boolean)

To add a parameter, enter your value in any corresponding text field, then click **Add**.

Please Add Your Value   Add

To delete a parameter, right click the corresponding value and select **Suppress value**. To delete all the parameters of a node, right click the node container and select **remove___all** .
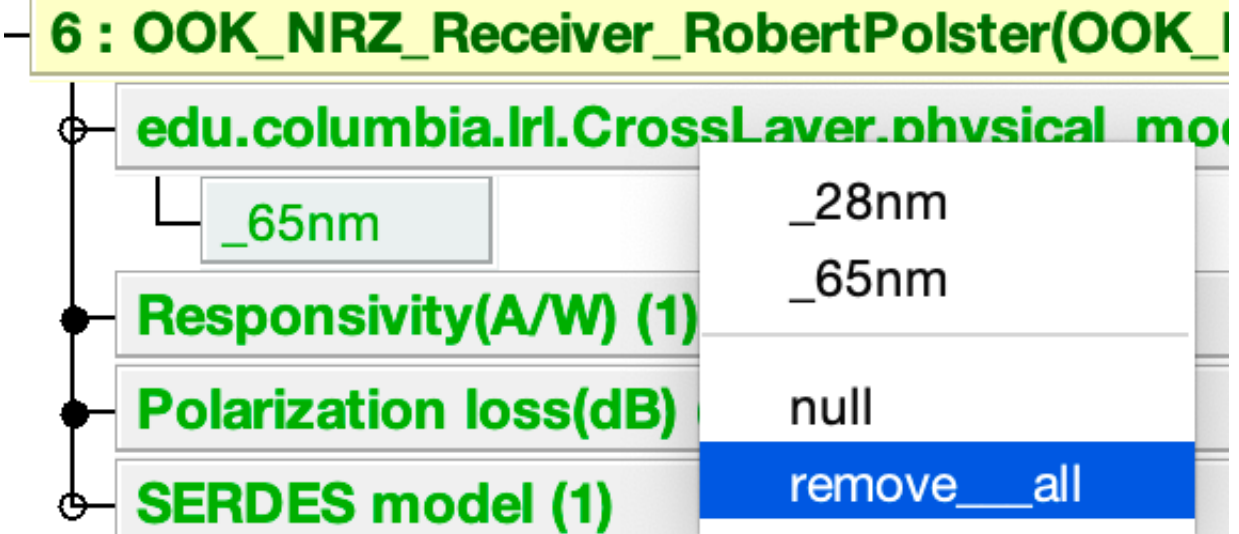
Click **Run** at the bottom to start the simulation.
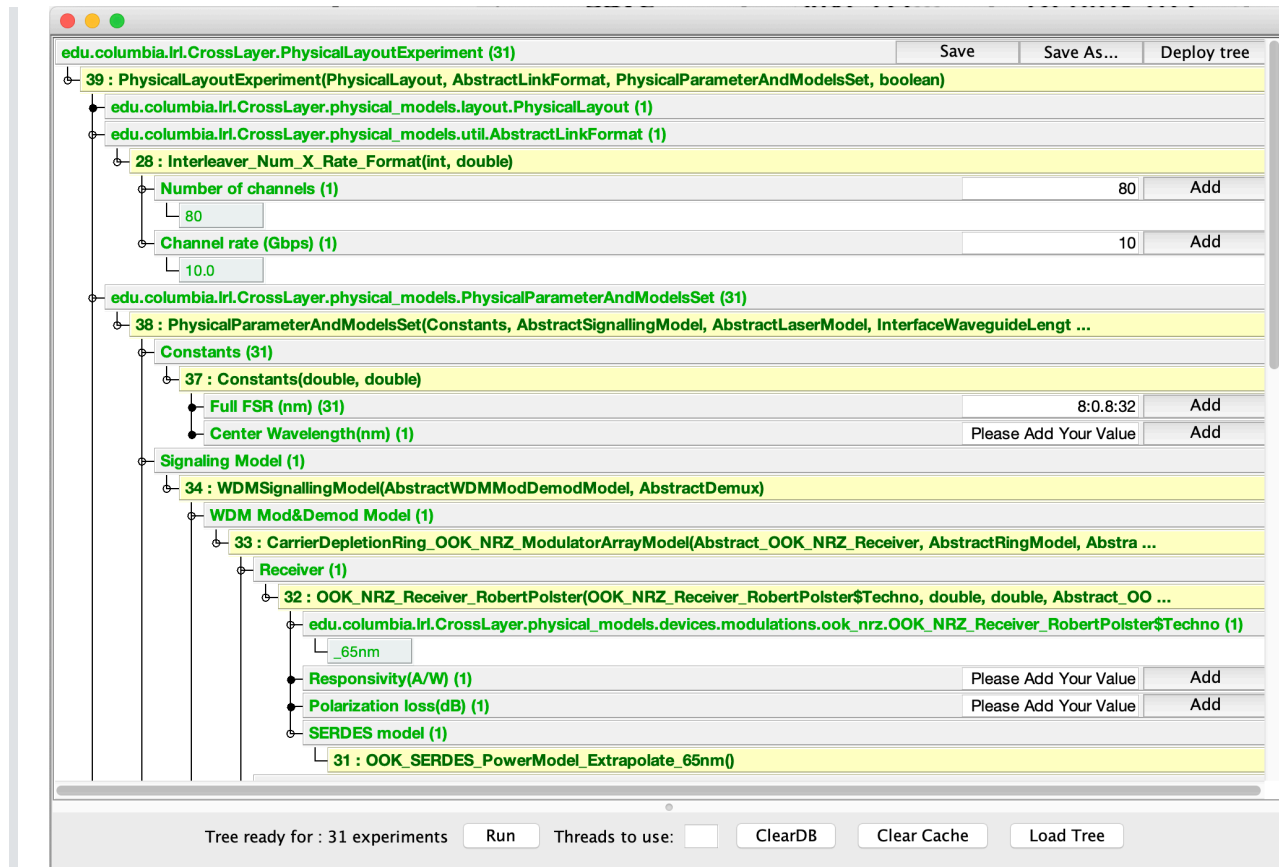
The result manager will automatically pop up when the simulation finishes. To investigate the power consumption of the full link, select **Energy-per-bit (pJ)** from the drag-down menu.

Actions

available budget dB
available budget per channel dB
Energy-per-bit (on-chip) (pJ)
Energy-per-bit (pJ)
laser eff
Layout power consumption at 100% (mW)
Layout power penalty (dB)
Layout propagation latency (ns)
Layout static power consumption (mW)
Required laser power (dBm)
Required laser power (mW)
Required opt power budget for layout (dB)

☑ Mean   ☐ Min
☐ Median   ☐ Con
☐ First   ☐ Inte

istogram chart   Pare

☐ Calculate sca

☐ Without idem hi

Actions

Energy-per-bit (pJ) ▼

☑ Mean   ☐ Min-Max
☐ Median   ☐ Confidence interval
☐ First   ☐ Interquartile range

YX Line Chart | Bar Chart | Histogram chart | Pareto chart

☐ Aggregate Line Rate (Gb/s) ▼   ☐ Calculate scalar product

☐ Same Axis
☐ No scale on X   ⦿ Lines   ☐ Without idem highlights
☐ Log scale on X ○ Non ave. lines ☐ Normalise with X axis
☐ Log scale on Y ○ No lines   ☐ Sort values according to val
☐ Use legend   ☐ Continuous colors
                                    ☐ Use log colors?

Color | Legend | Filters | Constants | Infos and Problems

X axis   Full FSR(nm) ▼   Full FSR(nm)
Shape   [   ] ▼   Layout feasibility
                                CONSTANT

☐ Include outputs

☑ Compute automati...   Compute   Idle

Energy-per-bit (pJ)