

# 1 Installation on Personal Computers

## 1. Download Julia

First, download Julia (command line version) for your platform from the downloads page:  
<https://julialang.org/downloads/>

## 2. Install Julia

- *On Windows*  
Run the downloaded installer, using the default settings.
- *On OS X*  
Double-click the downloaded disk image to load it. Drag the Julia-1.X.Y app onto the Applications folder shortcut.
- *On Linux*  
Unzip the downloaded folder and place it in your home directory. Make sure to have dependencies curl and cmake installed.

## 3. Install Atom

Download Atom from: <https://atom.io/>. Install Atom and open the program:

## 4. Install Juno

In Atom, go to Settings (Ctrl+,, or Cmd+, on macOS. Note that this is Control plus comma!) and go to the “Install” panel. Then, type uber-juno into the search box and hit enter. Click the install button on the package of the same name. Atom will then set up Juno for you, installing the required Atom and Julia packages.

# 2 Installation on Lab Computers (TB202 and TB206)

1. Both Julia and Atom are already installed.

## 2. Install Juno

In Atom, go to Settings (Ctrl+,, or Cmd+, on macOS. Note that this is Control plus comma!) and go to the “Install” panel. Then, type uber-juno into the search box and hit enter. Click the install button on the package of the same name. Atom will then set up Juno for you, installing the required Atom and Julia packages.

# 3 Installing and Using New Packages

## 1. Start the REPL

Type “Enter” at the Julia REPL (Read, Eval, Print, Loop) to start a new Julia session.

## 2. Enter the Package Manager

Type “]” (right square bracket) at the Julia REPL to enter the package manager and the prompt “**julia>**” will change to “**pkg>**”.

## 3. Add a Package

Type “**pkg> add Plots**” to add the package Plots. (Package names are case sensitive. Packages only need to be installed one time per computer.)

## 4. Use a Package

Type “Backspace” at the package manager prompt “**pkg>**” to return to the julia prompt “**julia>**”. At the julia prompt type “**julia> using Plots**”. Once installed, the package Plots is available for use. (You must re-issue the “using Plots” command every time you start a new Julia session.)

Packages we will use in this class: Plots, Interact, DSP, AbstractFFTs, and QuadGK.

# 4 Examples

- Example codes can be found at <https://github.com/ssandova/S-SI> .