



NTNU

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Introduction to Julia

Presentation and Workshop

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Overview

What is Julia?

Installation & REPL

Mean features

Packages

Pluto Notebooks

Workshop: Let's get you started with Julia!

What is Julia?

Goal: Scientific Computing & Fast Prototyping

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Important Resources

Main homepage <https://julialang.org>

Modern Julia Workflows <https://modernjuliaworkflows.org/>

Discourse forum <https://discourse.julialang.org>

These slides

[https://github.com/Julia-Users-Trondheim/Intro-to-Julia/
blob/main/presentation/introduction-to-julia.pdf](https://github.com/Julia-Users-Trondheim/Intro-to-Julia/blob/main/presentation/introduction-to-julia.pdf)

Installation & REPL

Installation

Read-Eval-Print Loop (REPL)

The Julia command line is called **REPL**.

Quick commands

^ D Quit

^ L Clear console screen

Up Arrow last command

REPL modes

Starting with special characters on REPL enters specific modes

? help mode

quick access to the documentation of a function

Example:

? sqrt displays the help for the sqrt function on REPL,
see also the (HTML) documentation

<https://docs.julialang.org/en/v1/base/math/#Base.sqrt-Tuple{Number}>

] package mode

quick access to manage packages

; shell mode

quick access to shell without exiting Julia,
e.g. to change folders

Mean features

General Code format

General Philosophy

For-loops, while and such

Functions

structs – Data structures

Multiple Dispatch

Packages

Pluto Notebooks

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