

Outline: NumPy

Seminar on Selected Tools Week 2 — NumPy

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- 1 Introduction
- 2 Data structures
- 3 Basic operations
- 4 Free discussion

Section 1

Introduction

Introduction

- 1 NumPy's main object is the homogeneous multidimensional array
- 2 Easy and fast to compute
- 3 Lots of useful functions included
- 4 Indexing, slicing and iterating functions the same way as in Python
- 5 Shape Manipulation

Section 2

Data structures

Data structures

Basically there are many array types.

Quote “NumPy supports a much greater variety of numerical types than Python does.”

Operations are similar to that in Python.

Section 3

Basic operations

Basic operations

- 1 Broadcasting
- 2 Fancy indexing
- 3 Linear Algebra
- 4 Histogram

Section 4

Free discussion