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Opening Remarks

- 1.1.1. Take Off
- 1.1.2. Outline Week 1
- 1.1.3. What You Will Learn

What is a Vector?

- 1.2.1. Notation
- 1.2.2. Unit Basis Vectors

Simple Vector Operations

- 1.3.1. Equality (=), Assignment (:=), and Copy
- 1.3.2. Vector Addition (ADD)
- 1.3.3. Scaling (SCAL)
- 1.3.4. Vector Subtraction

Advanced Vector Operations

- 1.4.1. Scaled Vector Addition (AXPY)
- 1.4.2. Linear Combinations of Vectors
- 1.4.3. Dot or Inner Product (DOT)
- 1.4.4. Vector Length (NORM2)
- 1.4.5. Vector Functions
- 1.4.6. Vector Functions that Map a Vector to a Vector

LAFF Package Development: Vectors


- 1.5.1. Starting the Package
- 1.5.2. A Copy Routine (copy)
- 1.5.3. A Routine that Scales a Vector (scal)
- 1.5.4. A Scaled Vector Addition Routine (axpy)
- 1.5.5. An Inner Product Routine (dot)
- 1.5.6. A Vector Length Routine (norm2)

Slicing and Dicing

- 1.6.1. Slicing and Dicing: Dot Product
- 1.6.2. Algorithms with Slicing and Redicing: Dot Product
- 1.6.3. Coding with Slicing and Redicing: Dot Product
- 1.6.4. Slicing and Dicing: axpy
- 1.6.5. Algorithms with Slicing and Redicing: axpy
- 1.6.6. Coding with Slicing and Redicing: axpy

Enrichment

1.71 Learn the Greek Alphabet

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- 1.7.1. Learn the Greek Alphabet
- 1.7.2. Other Norms
- 1.7.3. Overflow and Underflow
- 1.7.4. A Bit of History

Wrap Up

- 1.8.1. Homework
- 1.8.2. Summary of Vector Operations
- 1.8.3. Summary of the Properties of Vector Operations
- 1.8.4. Summary of the Routines for Vector Operations

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