

Logbook – 2024 May - June – Dimensionality Reduction and Applications (DRA)

[Resources](#)

[Jun 11, 2024 Divergence-based methods, interactive DR, and applications](#)

[Jun 4, 2024 Structure preservation - Spectral DR \(Laplacian Eigenmaps\)](#)

[May 28, 2024 Kernel PCA](#)

[May 21, 2024 Basics of dimensionality reduction](#)

Resources

- GDrive folder: [FullMaterial_DimensionReductionAndApplications](#)
- [Syllabus - Dimensionality Reduction and Applications \(DRA\)](#)
- GSite: [SDAS Group - Courses - Dimensionality reduction and applications](#)

Jun 11, 2024 Divergence-based methods,
interactive DR, and applications

Jun 4, 2024 Structure preservation - Spectral DR
(Laplacian Eigenmaps)

- **Lecture 3:** Structure preservation
 - [Slides](#)
 - [Recommended reading](#)
- **Lecture 4:** Spectral dimensionality reduction: Laplacian Eigenmaps
 - [Slides](#)
 - [Recommended reading](#)

May 28, 2024 Kernel PCA

- **Lecture 2:** Kernel PCA
 - [Slides](#)
 - [Lecture notes](#) Section 4
 - Feature selection using PCA:
 [Unsupervised_relevance_ICPRAM2013_long_version.pdf](#)

May 21, 2024 Basics of dimensionality reduction

- **Lecture 0:** Motivation and course presentation
 - [Slides](#)
- **Lecture 1:** Basics of dimensionality reduction
 - [Slides](#)
 - High-dimensional data
 - What is dimensionality reduction?
 - Principal component analysis
- [Assignment 1](#)
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