

MA635P-Scientific Programming Laboratory

Krylov Subspace: Arnoldi and Lanczos Method for Google Pagerank Algorithm

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Team

Team

- MA23M001 ADITYA PANDEY
- MA23M004 BADAL KUMAR
- MA23M009 PACHIGOLLA SAI KUMAR





Work

Google Page Rank Algorithm



1. Understand how does the google pagerank algorithm works [Reference](#)
2. Take 10 websites of a mathematical topic and then compute its pagerank matrix, compute their eigenvalues and then provide your conclusion based on it.

Arnoldi and Lanczos

1. Generate a linear solve package for Arnoldi and Lanczos using Python
2. Use the following reference [Reference](#)
3. Use this methods to compute the eigenvalues of a given matrix
4. Use the following [Reference](#)



Tasks

1. Read the following project instruction [Project Instruction](#)
2. Use python program and Arnoldi Lanczos method to compute eigenvalues



Deliverable

1. Python notebook (Google colab)
2. Report, Latex Presentation and video presentation, each one has to explain 3 minutes about their contribution and how did you develop the code, data etc.



Thanks

Doubts and Suggestions

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