

SciSpace 微教學

SciSpace 主頁功能介紹

The screenshot shows the SciSpace website interface. The top navigation bar includes 'Pricing', '+ Chat with PDF', and 'My Library' (highlighted with a red box). The left sidebar contains a menu with 'Home', 'My Library', 'My Notebooks', and a list of tools: 'Chat with PDF', 'Literature Review', 'AI Writer', 'Find Topics', 'Paraphraser', 'Citation Generator', 'Extract Data', 'AI Detector', and 'PDF to Video'. The main content area features the headline 'The Fastest Research Platform Ever' and 'All-in-one AI tools for students and researchers.' Below this is a search bar with the placeholder text 'Get insights from top papers directly' (highlighted with a red box). Underneath the search bar, there is a section titled 'Try asking or searching for:' followed by a list of example queries. At the bottom, there are sections for 'Popular Tools' (Chat with PDF and AI Writer) and 'Best for Researchers'.

也是跟 Elicit 一樣有
可以上傳 PDF 的個人
管理書庫

讀論文或是寫論文的時候會用的
實用小工具

搜尋各種題目或是問題
的欄位，跟 Elicit
的搜尋框的結合很像

SciSpace 搜尋頁面

The screenshot displays the SciSpace search interface. At the top, a search bar contains the query "mamba deep learning" and is highlighted with a red box. To its right, a callout box contains the text "搜尋的內容". Below the search bar, the interface shows "My Searches / mamba deep learning" and options for "Standard" and "High Quality" search results. A large red box highlights a summary card for the top 5 papers. This card includes a title "Answer from top 5 papers", a paragraph describing Mamba deep learning, and two sections: "Applications in Hydrology" and "Advancements in Medical Imaging", each with bullet points. To the right of this card, a callout box contains the text "也是跟 Elicit 一樣有前幾份論文的 summary". Below the summary card, a table of search results is visible, also highlighted with a red box. The table has columns for "Papers (10)", "Insights", and "Create or add columns". The first row shows a paper titled "1. Daily runoff prediction based on lightweight Mamba with partial normalization" by Donghuai Jia, Weide Li, Di Huang, et al. To the right of the table, a callout box contains the text "跟 Elicit 一樣的搜尋畫面，有排序、進一步篩選的 add column、但未顯示論文的 citations 數量".

搜尋的內容

也是跟 Elicit 一樣有前幾份論文的 summary

跟 Elicit 一樣的搜尋畫面，有排序、進一步篩選的 add column、但未顯示論文的 citations 數量

SciSpace summary

Journal Article • DOI [DOI](#)

7. OccMamba: Semantic Occupancy Prediction with State Space Models

Heng Li, Yuenan Hou, Xiaohan Xing +2 more

19 Aug 2024

PDF Summary Podcast Chat

66

Mamba deep learning refers to the Mamba architecture, which offers global modeling with linear computation complexity, enabling efficient processing of large voxel grids in semantic occupancy prediction, as demonstrated in the OccMamba network for improved performance on benchmark datasets.

SciSpace 提供高效的論文摘要功能，能夠快速對特定論文生成摘要並提取關鍵資訊。其處理速度較快，能幫助使用者迅速掌握論文內容。然而，使用該功能時需留意不同方案的使用限制，以確保符合研究需求。

Summary for "7. OccMamba: Semantic Occupancy Prediction..."

Abstract

- Training deep learning models for semantic occupancy prediction is challenging.
- Transformer architectures are often used but have high computational complexity.
- The Mamba architecture offers global modeling with linear computation complexity.
- OccMamba is introduced as the first Mamba-based network for this task.
- A 3D-to-1D reordering operation is proposed to improve performance.
- OccMamba achieves state-of-the-art results on OpenOccupancy, SemanticKITTI, and SemanticPOSS.
- It outperforms the previous state-of-the-art by significant margins.
- Code will be released upon publication.

Introduction

- Semantic occupancy prediction is crucial for autonomous driving and robotics.
- Challenges include numerous occupancy grids, occlusion, and complex scenarios.
- Recent methods show progress but are limited by uni-modal inputs.
- Multi-modal approaches improve but struggle with global information capture.
- Transformer models are effective but computationally expensive for large voxel grids.

SciSpace summary

Journal Article • DOI [DOI](#)

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Chat with Paper

Standard High Quality

notable weaknesses Novel Methodologies Future research direction Surprising Results

Were there any unexpected or surprising results reported in these papers?. How [+5 more](#)

Ask a question on :

7. OccMamba: Semantic Occupancy Prediction with State Space Models

Ask any question...

SciSpace 提供 Chatbot 功能，使用戶能夠針對特定論文進行互動式提問，以獲取更深入的理解。然而，該 Chatbot 在處理整篇論文的閱讀能力及減少 AI 幻覺方面的實際效果尚未經過全面驗證。但整體而言，此功能對於研究者的文獻閱讀與分析仍具有一定的輔助價值。

SciSpace Library

問題欄位，可以針對你上傳的PDF發問

The screenshot displays the SciSpace Library interface. On the left is a sidebar with navigation icons and a 'Library' section containing 'All files', 'Import from Zotero', and 'Folders'. The main area features a search bar at the top with the text 'In: All folders Search or ask a question...'. Below the search bar, there are controls for 'High Quality', language ('en'), 'Chat', 'New notebook', and 'Upload PDFs'. A list of files is shown, including 'C3DPO.pdf' and 'Automatic Registration of Images to Untextured ...'. The 'C3DPO.pdf' entry is expanded, showing a 'TL;DR' section with a bulleted list of key points. A sidebar on the right offers options to 'Create or add columns' and lists various document sections like 'Conclusions', 'Summarized Abstract', 'Results', etc. A 'Chat' button is visible at the bottom right of the sidebar.

In: All folders Search or ask a question...

All files: 大部分論文會生成會生成一段總結 p.s. TL;DR = too long; didn't read

High Quality en Chat New notebook Upload PDFs

Sort by: Export

Create or add columns Create your own custom column or select from the list of suggestions

Create new column

+ Conclusions
+ Summarized Abstract
+ Results
+ Summarized Introduction
+ Methods Used
+ Literature Survey
+ Limitations
+ Contributions
+ Practical Implications
+ Objectives
+ Findings
+ Research Gap
+ Future R
+ Depend

Chat

- The paper presents C3DPO for 3D pose estimation. [1]
- It utilizes 2D keypoints for monocular reconstruction. [1]
- The method factors shape and viewpoint during learning. [1]
- It compares against strong baselines with diverse benchmarks. [2]
- The approach emphasizes inexpensive 2D keypoint labels. [2]

- The paper addresses image-to-geometry registration without texture information. [1]
- It proposes using average shading gradients for registration. [1]

跟Elicit類似的篩選排序之類的工具

SciSpace Library

可以調整chatbot回覆的語言

The screenshot shows the SciSpace Library interface. On the left, there is a list of files under the heading "All files". Each file entry includes a checkbox, a file icon, the title, the folder name, the last viewed date, and buttons for "Summary", "Podcast", and "Chat".

The main area displays the content of a selected file, which is a PDF document. The text is in Chinese and discusses 3D mesh reconstruction. There are several callout boxes with numbers [1] and [2] pointing to specific parts of the text.

On the right side, there is a chatbot interface. At the top, there is a language selector dropdown menu set to "zh". Below it, there are buttons for "Standard" and "High Quality". The chatbot has responded to a user query in Chinese. The response is in a light blue box and includes a title "TL; DR : 单视图 3D 网格重建" and a detailed summary of the paper's content. At the bottom of the chatbot interface, there is a text input field with the placeholder "Ask any question..." and a send button.

用戶可以點選顯示「Chat」的機器人符號來開啟與 Chatbot 互動，提出針對論文內容的問題並獲得回應。然而，目前尚不清楚該 Chatbot 在處理論文內容時可能出現的幻覺問題，使用者在運用該功能時需謹慎，並綜合考量其回應的準確性。

SciSpace總結

SciSpace 是一款強大的 AI 學術研究工具，能幫助學生與研究者快速搜尋、閱讀和理解學術論文。其 AI-assisted 解讀功能可自動生成摘要，並提供深入的上下文解釋，降低閱讀專業論文的門檻。此外，SciSpace 提供完整且較新的學術資源，確保研究者能獲取高品質的學術資訊。雖然免費版有部分使用限制，但仍是一款值得推薦的學術輔助工具。