

The **Knowledge Management Pro.7** is an online application for creating, sharing, and exporting structured knowledge in a collaborative environment. It revolves around **knowledge cards**, which can contain LaTeX-formatted text, figures with captions, and associated metadata. Users organize these cards into thematic **knowledge collections**, which can be shared, exported, or archived. Additionally, the tool includes bibliography management and collaboration features. This application is a complete solution for organizing, sharing, and exporting knowledge, making it a must-have tool for teams in academia and beyond.

## Key Features

### Thematic Knowledge Collections:

- ❖ Admins create themes to group related knowledge.
- ❖ Users build collections by adding cards to these themes, ensuring organized and easy-to-navigate content.

### Knowledge Cards:

Each card consists of:

- ❖ LaTeX content for advanced formatting (e.g., equations,..).
- ❖ Optional figures with captions for visual context.
- ❖ Zip archive with selected files.
- ❖ Users can attach references, enabling citation tracking.

### Export Options:

Knowledge collections can be exported as:

- ❖ **LaTeX projects:** Ready-to-edit files for Overleaf or local editors.
- ❖ **Zip archives:** Including LaTeX files, figures, BibTeX databases, and supporting assets for offline use.

### Collaboration and Sharing:

Knowledge collections can be:

- ❖ **Private:** Available only to the creator.
- ❖ **Shared:** Accessible to coworkers within the user's workspace.

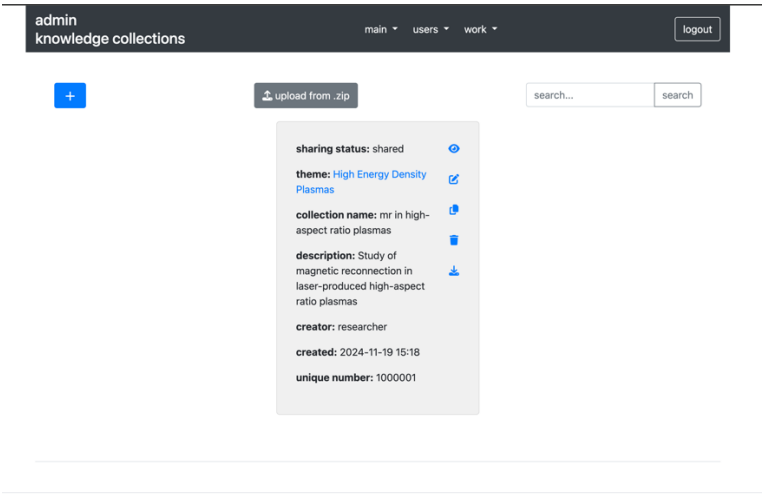
Shared collections allow:

- ❖ Collaboration on large projects.
- ❖ Knowledge transfer between teams or departments.
- ❖ Visibility and reuse of existing cards for faster knowledge building.

# main pages description



Login page serves as the entry point for authenticated access to the application.



the "knowledge collections" space within the Knowledge Management Pro.7 application, providing an overview of an organized collection of knowledge resources. A specific collection is displayed with metadata such as its sharing status (shared), theme ("High Energy Density Plasmas"), collection name, description, creator, creation date, and a unique identifier. Users can perform actions like viewing, editing, copying, deleting, or downloading the collection, and the interface includes options to upload new collections (e.g., via .zip files), search existing collections, or create new ones using a prominent "+" button.

.. / mr in high-aspect ratio plasmas

download pdf + tex project



# 1

Ohm's law

Ohm's law for plasma systems with electric field and related terms.

The equation governing the electric field in plasma, incorporating the effects of ideal terms, Hall terms, pressure divergence, and resistivity, is given as[zweibel1982,priest2000]:

$$E = -V_i \times B + \frac{1}{en} (J \times B - \nabla \cdot P_e) + \eta J$$

Key parameters can be summarized in the following table:

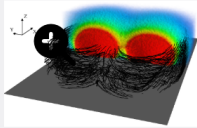
Term	Expression	Physical Meaning
Ideal Term	$-V_i \times B$	Induction by plasma
Hall Term	$\frac{1}{en} J \times B$	Hall effect
Pressure Divergence	$-\frac{1}{en} \nabla \cdot P_e$	Electron pressure
Resistive Term	$\eta J$	Ohmic heating

biblio:

- [zweibel1982] Magnetic reconnection in astrophysical and laboratory plasmas
- [priest2000] Magnetic Reconnection: MHD Theory and Applications

# 2

snapshot



Color-coded density, snapshot for the modeled configuration, black lines represent magnetic field lines.

We present the results of the 3D numerical simulations of the laser-produced plasmas magnetic reconnection in large-system size regime and consider collisionless ions cases including electron momentum transfer with/without additional allowance for the effects of electron-ion and ion-ion collisions. Such a model allows observing the formation and subsequent breakup of the reconnection current sheet. Following the experiments, we use pairs of laser-produced plumes from a flat target.

# 3

protonradiography

# 4

bfield

The collection has a two-column representation referring to the classic paper style. The screenshot displays the detailed view of a specific collection titled "mr in high-aspect ratio plasmas". The "snapshot" item illustrates a 3D simulation of plasma density and magnetic field lines, focusing on the formation and breakup of the reconnection current sheet in laser-driven plasma experiments. Ohm's law card shows the possibility to add equation, table and bibliography. All items allow editing, deletion, versioning and metadata files management, with a button to download the project in PDF + TeX format.

admin

history ×

Version 1 delete version

**snapshot**

Color-coded density, snapshot for the modeled configuration, black lines represent magnetic field lines.

We present the results of the 3D numerical simulations of the laser-produced plasmas magnetic reconnection in large-system size regime and consider **collisionless ions** cases including electron momentum transfer with/without additional allowance for the effects of electron-ion and ion-ion collisions. Such a model allows observing the formation and subsequent breakup of the reconnection current sheet. Following the experiments, we use pairs of laser-produced plumes from a flat **solid** target.

**snapshot**







Color-coded density, snapshot for the modeled configuration, black lines represent magnetic field lines.

We present the results of the 3D numerical simulations of the laser-produced plasmas magnetic reconnection in large-system size regime and consider collisionless ions cases including electron momentum transfer with/without additional allowance for the effects of electron-ion and ion-ion collisions. Such a model allows observing the formation and subsequent breakup of the reconnection current sheet. Following the experiments, we use pairs of laser-produced plumes from a flat target.





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momentum transfer with/without additional allowance for the effects of electron-ion and ion-ion collisions. Such a model

User can manage versioning of the items.

admin bibliothèque						
			main ▾ users ▾ work ▾		logout	
					<div>+</div> <div>search... search</div>	
name	title	authors	year	bibtex	actions	
priest2000	Magnetic Reconnection: MHD Theory and Applications	E. R. Priest and T. G. Forbes	2000	@book{priest2000, title={Magnetic Reconnection: MHD Theory and Applications}, author={E. R. Priest and T. G. Forbes}, year={2000}, publisher={Cambridge University Press}}		
petschek1964	Magnetic field annihilation	H. E. Petschek	1964	@inproceedings{petschek1964, title={Magnetic field annihilation}, author={H. E. Petschek}, booktitle={The Physics of Solar Flares}, pages={425-439}, year={1964}, publisher={NASA Special Publication}}		
zweibel1982	Magnetic reconnection in astrophysical and laboratory plasmas	E. G. Zweibel and M. Yamada	1982	@article{zweibel1982, title={Magnetic reconnection in astrophysical and laboratory plasmas}, author={E. G. Zweibel and M. Yamada}, journal={Annual Review of Astronomy and Astrophysics}, volume={40}, number={1}, pages={141-171}, year={1982}, publisher={Annual Reviews}}		

Owner can manage available bibliography. Each item has bibtex field which contains code inserted in .bib file while exporting knowledge collection to the TEX project. Also, it is possible to attach the pdf file and download it when necessary.

admin themes				
			main ▾ users ▾ work ▾	
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Neutron and Proton Acceleration	Exploring the acceleration mechanisms for neutrons and protons, especially in high-energy environments such as particle accelerators and astrophysical phenomena. This research involves understanding the interactions of charged particles with electromagnetic fields and their behavior in both laboratory and space settings.	<input checked="" type="checkbox"/>		
High Energy Density Plasmas	Research focusing on the behavior and dynamics of plasmas under extreme conditions, such as high pressure, temperature, and electromagnetic fields. This includes studying fusion, astrophysical plasmas, and laser-plasma interactions in controlled environments.	<input checked="" type="checkbox"/>		

Owner must create themes which allows to group knowledge collections.