

# Server side

Hugging face  
(LLM summarization)

Supabase  
(SQL database)

Qdrant  
(vector database)

Backend  
(python  
fastAPI)

Front end  
(nextJS)

Interact with DB, authenticate,  
recommend, search, etc.

User interactions (drag and  
drop, click, etc)

# Client side



Cloudflare

USER INTERFACE

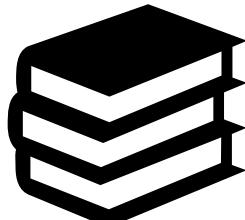
# Supabase

Paper entries were filled from the official ArXiv Kaggle dataset

	id	title	subm...	autho...	doi	abstract	categ...	journal
	2	Calculation of prompt diphoton production in the limit of small photon transverse momenta	5	[{"1", "2", "3", "4"}]	10.1103/PhysRevD.76.013	A fully differential calculation in perturbative quantum chromodynamics is presented for the production of two photons in the limit of small transverse momenta. The calculation is performed at the one-loop level and includes all contributions from the one-loop diagrams. The results are presented in terms of the coupling constant and the mass of the gluon.	hep-ph	Phys.R
	7	Bosonic characters of atomic Cooper pair wave functions	13	[{"12"}]	10.1103/PhysRevA.75.043	We study the two-particle wave function of a two-component Fermi system in the presence of a magnetic field. We find that the wave function has a non-trivial character, which is related to the fact that the system is bosonic.	cond-mat.mes-ha	NULL
	8	Polymer Quantum Mechanics and its Connection to Statistical Mechanics	14	[{"14", "15"}]	10.1103/PhysRevD.76.044	A rather non-standard quantum representation of a polymer chain is proposed. It is shown that this representation is equivalent to the standard one, but it has some interesting properties. In particular, it is shown that the polymer chain can be represented as a collection of particles interacting with each other through a potential that depends on the distance between them.	gr-qc	Phys.R
	9	Numerical solution of shock and ramp propagation in a plasma	17	[{"16"}]	10.1063/1.2975338	A general formulation was developed to represent the numerical solution of shock and ramp propagation in a plasma. The formulation is based on the finite difference method and is able to handle both shock and ramp propagation.	cond-mat.mtrl-sc	Journal of Physics: Condensed Matter
	10	The Spitzer c2d Survey of Large, Nearby, Star-forming Regions	18	[{"18", "19", "20", "21", "22", "23", "24"}]	10.1086/518646	We discuss the results from the combined Spitzer and Hubble Space Telescope surveys of large, nearby, star-forming regions. We find that the Spitzer survey provides a wealth of information about the physical properties of these regions, such as their mass, age, and chemical composition.	astro-ph	Astrophysics
	16	Fermionic superstring loop amplitudes in ten dimensions	31	[{"31"}]	10.1088/1126-6708/2007/1	The pure spinor formulation of the ten-dimensional fermionic superstring is used to calculate the loop amplitudes. The results are presented in terms of the coupling constant and the mass of the string.	hep-th	JHEP
	17	Lifetime of doubly charmed baryons	35	[{"32", "33", "34"}]	10.1088/0253-6102/49/4/04	In this work, we evaluate the lifetimes of the doubly charmed baryons D_s^+ D_s^+ and D_s^+ D_s^0. We find that the lifetimes are very similar, with a slight difference between the two.	hep-ph	Communications in High Energy Physics
	18	Spectroscopic Observations of the Intern...	36	[{"36", "37", "38", "39", "40"}]	10.1111/j.1365-2966.2007.1	Results from spectroscopic observations of the intern...	astro-ph	Mon.Not.Roy.Astron.Soc.
	21	Measurement of the Hadronic Form Factor F_2(Q^2)	46	[{"43", "44", "45"}]	10.1103/PhysRevD.76.052	The shape of the hadronic form factor f_2(q^2) is measured for the first time. The results are compared with theoretical predictions.	hep-ex	Phys.Rev.D
	22	Molecular Synchronization Waves in Arr...	48	[{"47", "48", "49"}]	10.1103/PhysRevLett.99.0	Spatiotemporal pattern formation in a pre...	nlin.PS physics.ch	Phys. Rev. Lett.
	24	ALMA as the ideal probe of the solar chromosphere	54	[{"52", "53"}]	10.1007/s10509-007-9626	The very nature of the solar chromosphere is studied using the Atacama Large Millimeter Array (ALMA).	astro-ph	Astrophysics
	26	Spectroscopic Properties of Polarons in Superconductors	63	[{"59", "60", "61", "62"}]	10.1007/978-1-4020-6348	We present recent advances in understanding the spectroscopic properties of polarons in superconductors.	cond-mat.str-el	NULL
	28	Filling-Factor-Dependent Magnetophono...	65	[{"65", "66", "67", "68"}]	10.1103/PhysRevLett.99.0	We describe a peculiar fine structure acquired by the magnetophono...	cond-mat.mes-ha	Phys. Rev. Lett.
	30	Understanding the Flavor Symmetry Breaking in QCD	72	[{"70", "71"}]	10.1103/PhysRevD.75.094	In \$\\mathcal{N}=1\$ supersymmetric QCD, a quark can emit Goldstone bosons.	hep-ph	Phys. Rev. D
	31	Tuning correlation effects with electron-positron annihilation	74	[{"73"}]	10.1007/s10909-005-601	We investigate the effect of tuning the phase transition temperature on the correlation length.	cond-mat.str-el	J. Low. Temp. Phys.
	32	Crystal channeling of LHC forward protons	77	[{"75", "76"}]	10.1016/j.physletb.2007.1	We show that crystal can trap a broad (x, y) beam.	hep-ph	Phys.Lett.B
	33	Probing non-standard neutrino interactions	80	[{"78", "79"}]	10.1103/PhysRevD.76.053	We analyze the possibility of probing non-standard neutrino interactions.	hep-ph	Phys. Rev. D

# Recommendations

- Papers are encoded into vectors using Qwen-embedd-0.8B.
- We combine information from your profile to find papers like the one you love and different from the ones you dislike.
- Qdrant is used for vector search



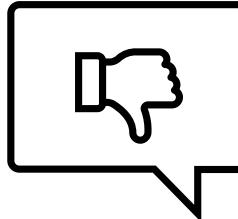
Read later list



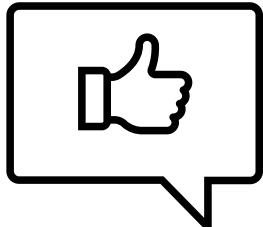
Comments



Paper ratings



Disliked comments



Liked comments

# REST API



The front end provides an UI to interact with the program.

## auth



## comments



**POST** /comments/ Create Comment



**GET** /comments/{comment\_id} Get Comment



**PATCH** /comments/{comment\_id} Update Comment



**DELETE** /comments/{comment\_id} Delete Comment



**GET** /comments/article/{article\_id} Get Article Comments



**POST** /comments/{comment\_id}/upvote Upvote Comment



**POST** /comments/{comment\_id}/downvote Downvote Comment



**GET** /comments/user/threads Get User Discussion Threads



## reading-list



**GET** /reading-lists/ Get All My Reading Lists



**POST** /reading-lists/ Create Reading List

