

A customized web application for XENON collaboration member management

Jason Lee, Shixiao Liang, Yvette Martinez, Christopher Tunnell

CHEP 2023

May 8th 2023



XENON

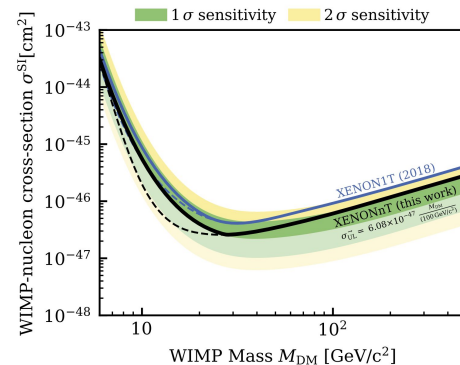


RICE

The XENONnT Experiment

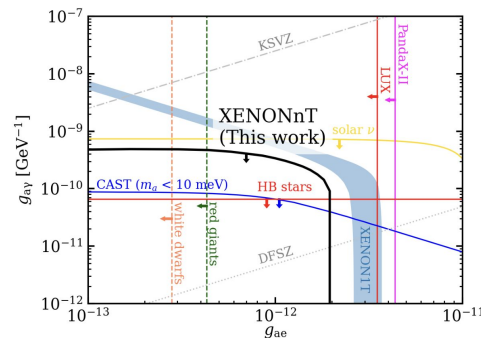


XENONnT



First WIMP dark matter result

arXiv:2303.14729

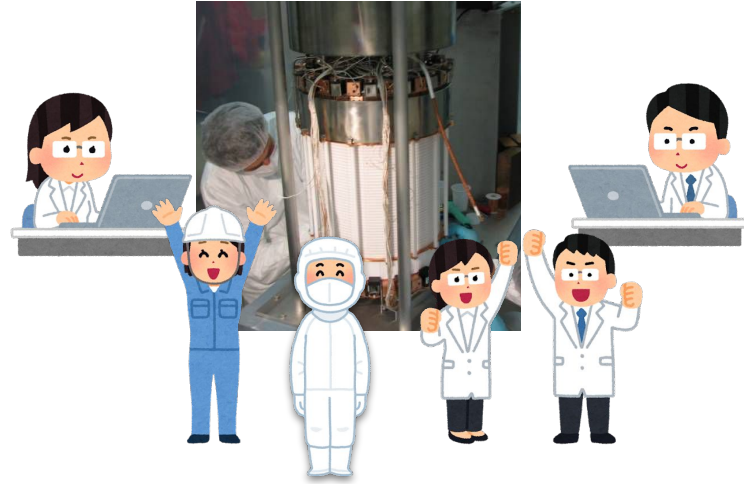


New physics search in electronic recoil data

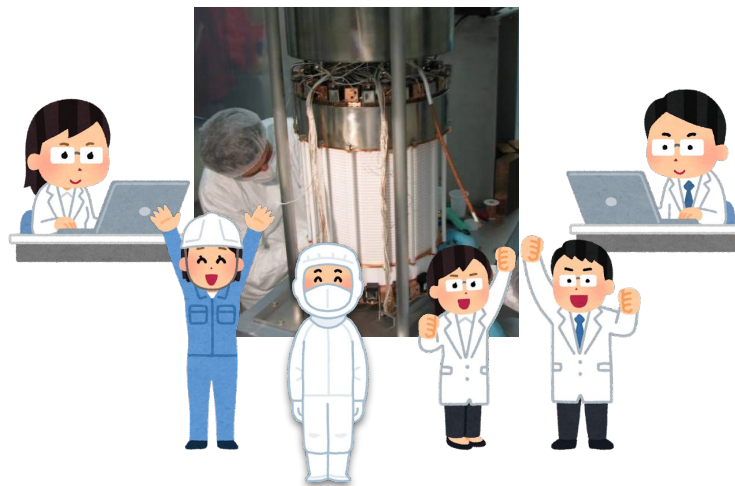
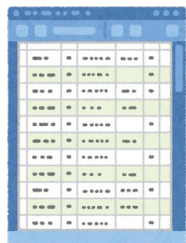
Phys. Rev. Lett. **129**, 161805 (2022)

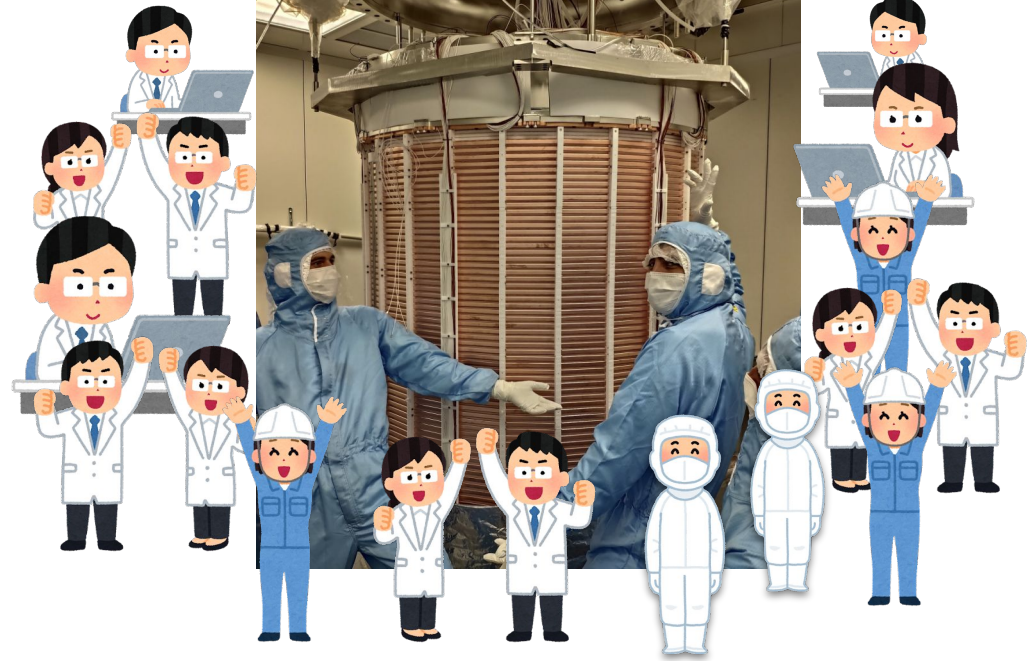
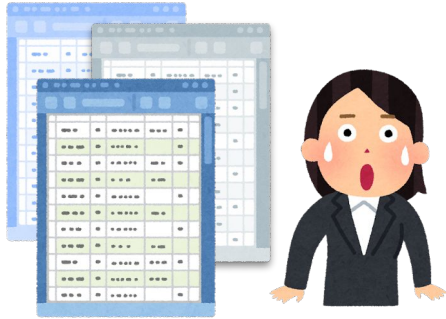
arXiv:2207.11330

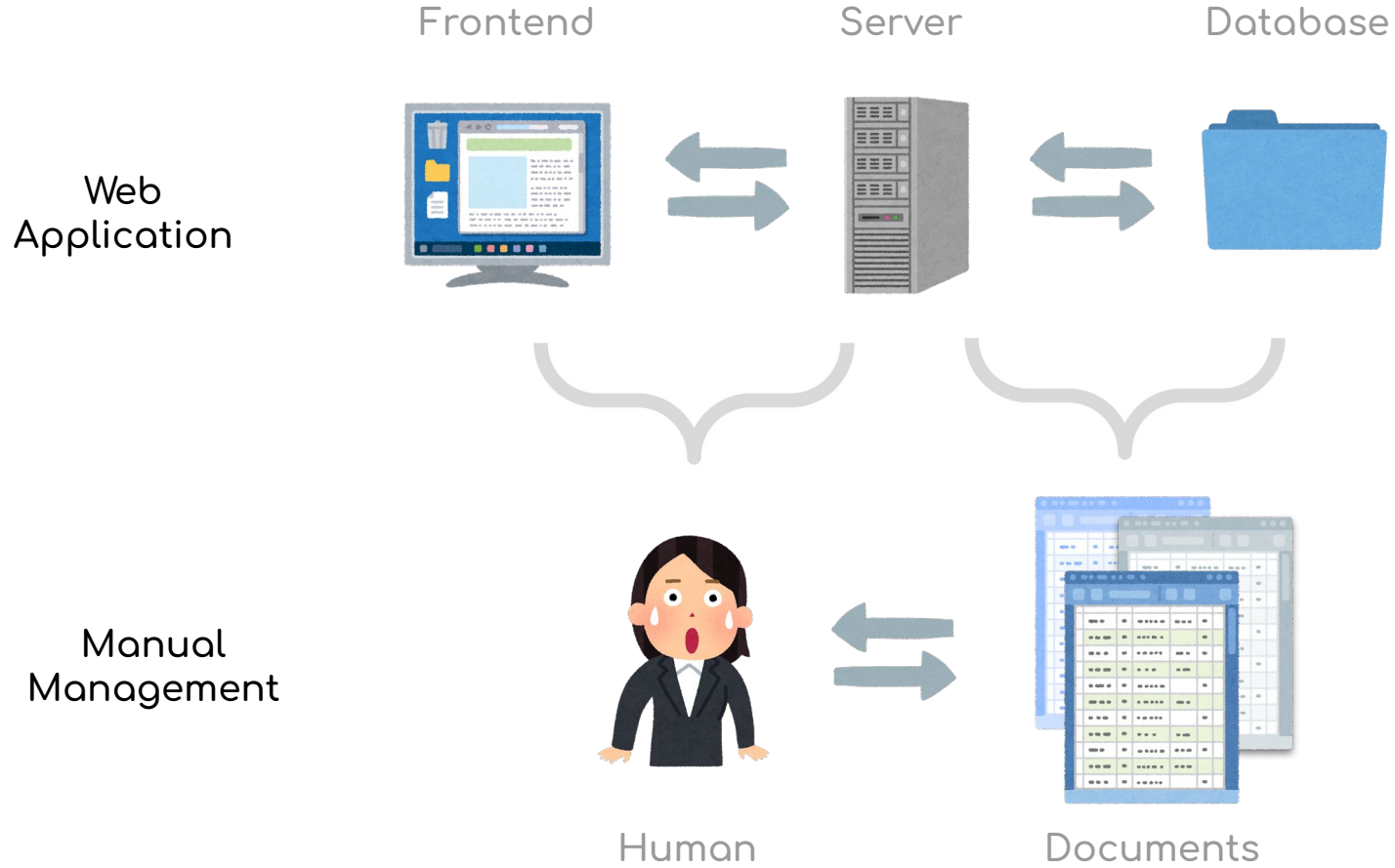
XENON100 2008-2016 ~70 members

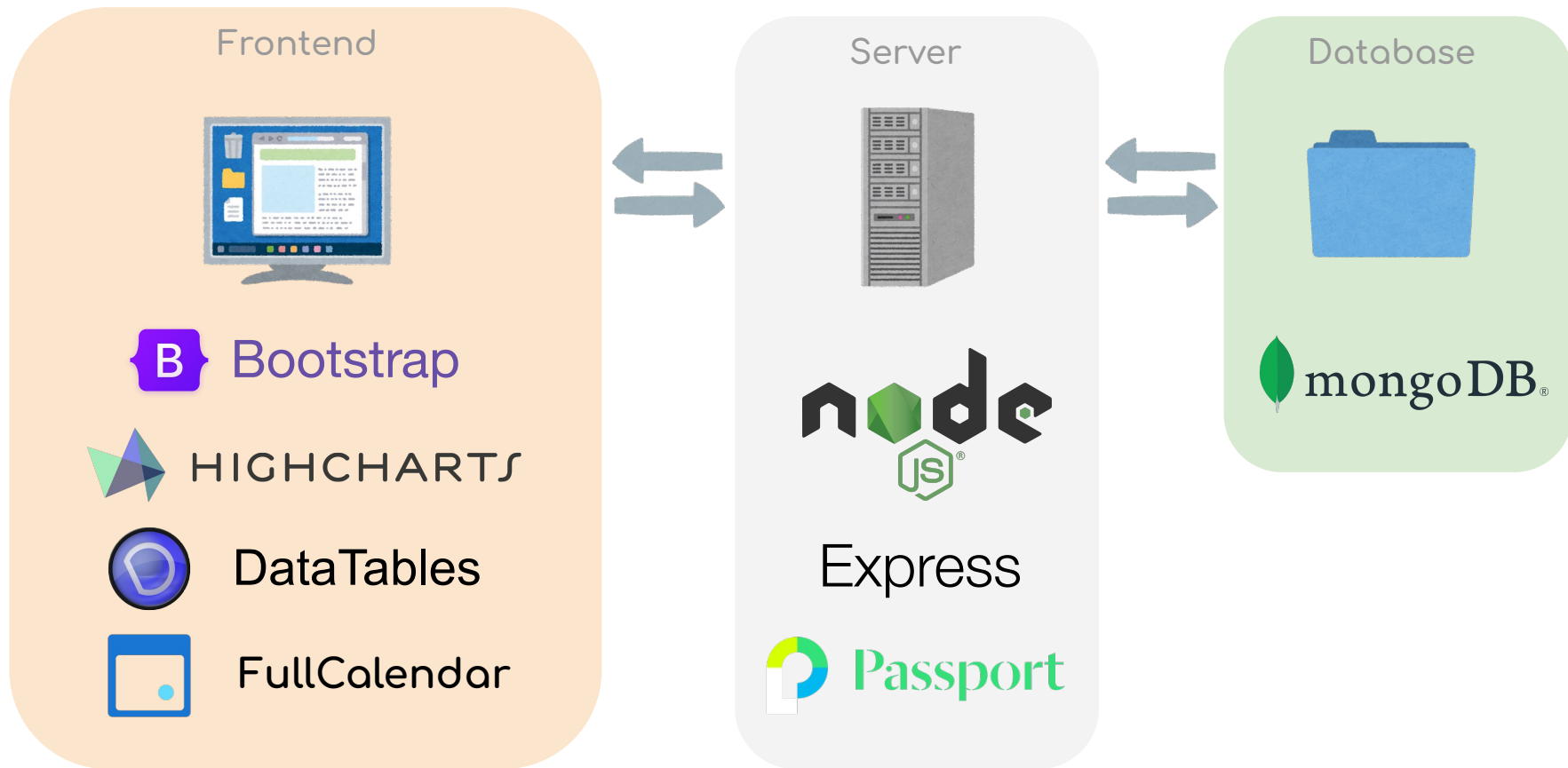


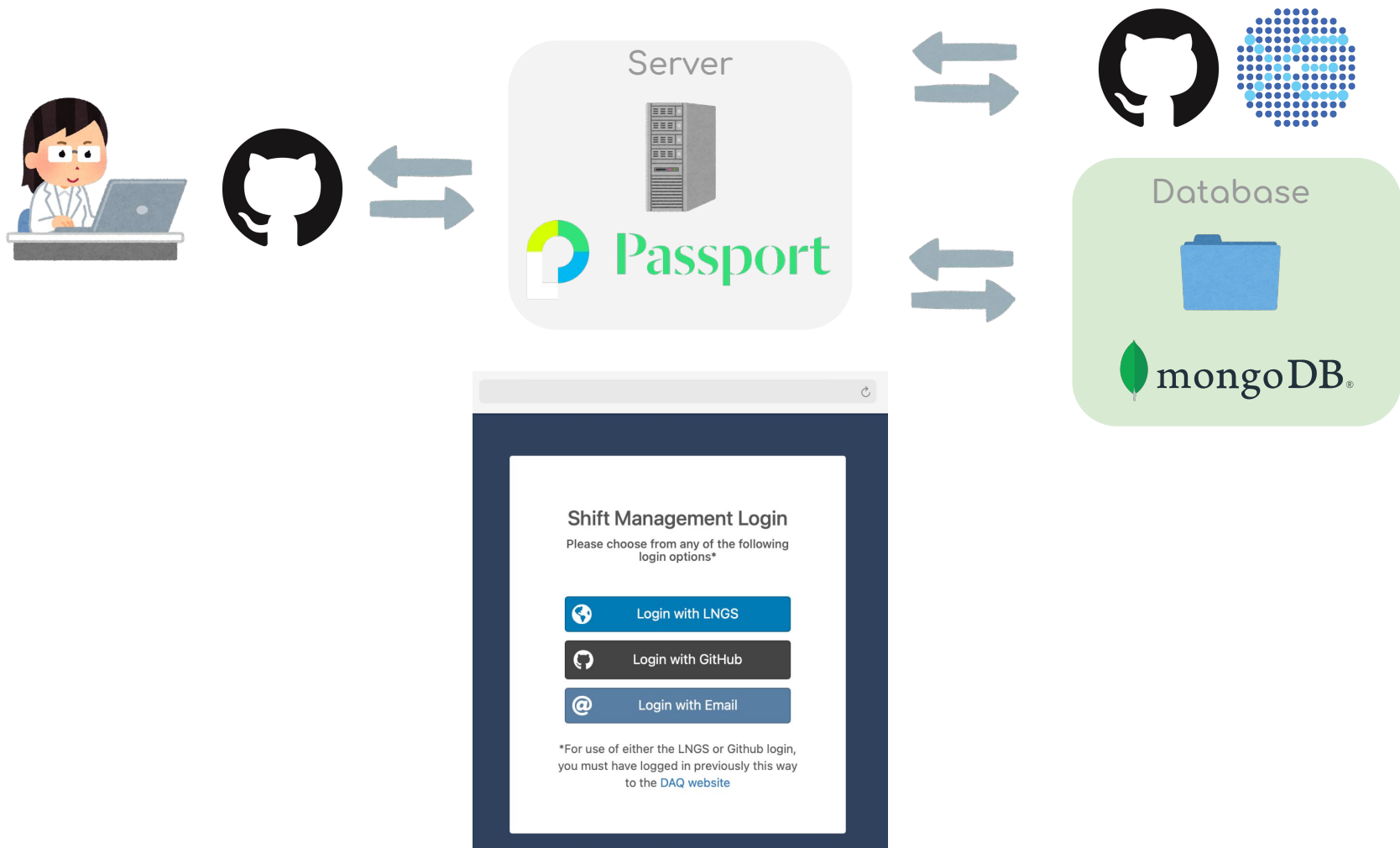
XENON100 2008-2016 ~70 members











Institutes

Number of Institutes: 27

Bologna

Coimbra

Columbia

Freiburg

KIT

Kobe

L'Aquila

LNGS

LPNHE

MPIK Heidelberg

Mainz

Muenster

NYUAD

Nagoya

Naples

Nikhef

Purdue

Rice

Stockholm

Subatech

Tokyo

Torino

Tsinghua

UCSD

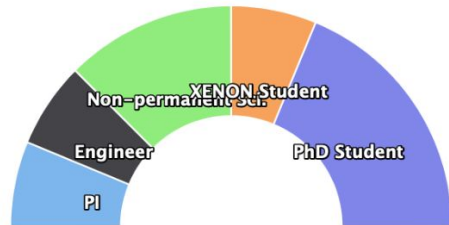
UChicago

WIS

Zurich

For full member directory visit [/fulldirectory](#)

Rice XENON team at a glance



Current Members: 8

PI: Tunnell, Christopher

Members

[Request New Member](#)[Current Members](#)[Previous Members](#)

► Bajwa, Waheed

► Higuera, Aaron

► Lee, Jason

► Li, Ivy

► Liang, Shixiao

► Peters, Christina








► Sanchez, Luis

► Tunnell, Christopher

Current Members

XENON members list

(rice

Institute	Last Name	First Name	Avatar	Email	Position	Time	Start Date	Phone Number	Explanations
Rice									
Rice	Tunnell			@rice.edu	PI		May 2013		
Rice	Higuera			@rice.edu	Non-permanent Sci.	100	May 2020		
Rice	Peters			@rice.edu	Non-permanent Sci.	85	May 2021		
Rice	Liang	Shivani		liangsh@rice.edu	PhD	100	Aug	8328407182	

XENON COLLABORATION

Current Members Previous

XENON members list

+ Add Member

Institute	Last Name	First Name
Rice		
Rice	Tunnell	
Rice	Higuera	
Rice	Peters	
Rice		

Add New User

First Name

Last Name

Work Email

Position ?
Please select

Institute

Percentage FTE on XENON

Tasks ?

Mailing Lists

<input checked="" type="checkbox"/> xe-all	<input type="checkbox"/> xe-muonveto
<input type="checkbox"/> xe-analysis	<input type="checkbox"/> xe-nveto
<input type="checkbox"/> xe-calibration	<input type="checkbox"/> xe-operations
<input type="checkbox"/> xe-clean	<input type="checkbox"/> xe-pmts
<input type="checkbox"/> xe-commissioning	<input type="checkbox"/> xe-purity
<input type="checkbox"/> xe-computing	<input type="checkbox"/> xe-purification
<input type="checkbox"/> xe-cryogenics	<input type="checkbox"/> xe-restox
<input type="checkbox"/> xe-cryostat	<input type="checkbox"/> xe-screening
<input type="checkbox"/> xe-daq	<input type="checkbox"/> xe-slowcontrol
<input type="checkbox"/> xe-detector	<input type="checkbox"/> xe-tpc
<input type="checkbox"/> xe-infrastructure	<input type="checkbox"/> xe-watertank
<input type="checkbox"/> xe-montecarlo	

Start Date

End Date

Submit

Institute

Tech

Position ?

Eng & Tech Positions

Engineer

Technician

Non-permanent Sci.

Permanent Scientist

PhD Student

Thesis Student

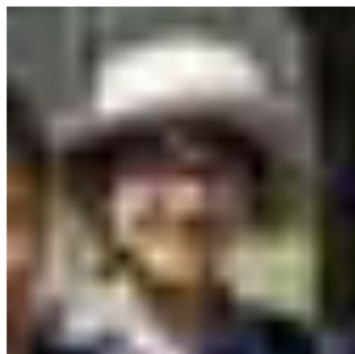
XENON Student

Eng & Tech Positions

Engineer

Technician

Non-permanent Sci.	100	May 2020
Non-permanent Sci.	85	May 2021
PhD	100	Aug 2020



Shixiao Liang

PhD Student at Rice

XENON Profile

CONTACT INFO

E-mail: liangsx@rice.edu
Skype: not set
Cell:
Percent Xenon: 100%

ACCOUNTS

GitHub ID: reallsx
LNGS ID:

Member since: Aug 01 2019

[Update Contact Info](#)



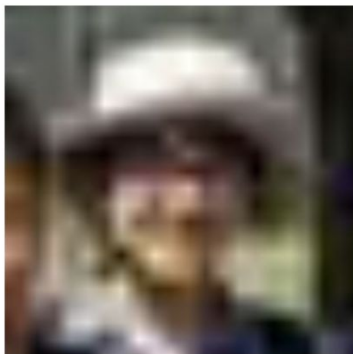
[Join Slack](#)



[Request XENON1T Access](#)



[Request XENONnT Access](#)



Member since: Aug 01 2019

Update Contact Info

Shixiao Liang

PhD Student at Rice

XENON Profile

CONTACT INFO

E-mail: liangsx@rice.edu
Skype: not set
Cell:
Percent Xenon: 100%

ACCOUNTS

GitHub ID: reallsx
LNGS ID:

```
_id: ObjectId('5dc063f4c010e473538e1762')
last_name: "Liang"
first_name: "Shixiao"
institute: "Rice"
email: "liangsx@rice.edu"
start_date: 2019-08-01T00:00:00.000+00:00
percent_xenon: 100
position: "PhD Student"
lngs_ldap_uid:
daq_id:
active: "true"
lngs_ldap_cn: "Shixiao Liang"
lngs_ldap_email: "liangsx@rice.edu"
github: "reallsx"
github_home: null
picture_url: "https://avatars.githubusercontent.com/u/39665345?v=4"
cell:
favorite_color: "#000000"
skype: "not set"
▶ groups: Array
```



Join Slack



Request XENON1T Access



Request XENONnT Access

■ Training

Sun	Mon	Tue	Wed	Thu	Fri	Sat
28	29	30	31	1	2	3
shifter: brown(Freiburg)						
4	5	6	7	8	9	10
shifter: brown(Freiburg)						
shifter: selvi(Bologna)						
11	12	13	14	15	16	17
shifter: brown(Freiburg)						
+1 more	+2 more	+2 more	+2 more	+2 more	+2 more	+2 more
18	19	20	21	22	23	24
shifter: selvi(Bologna)						
+1 more	+2 more	+2 more	+2 more	+2 more	+2 more	+2 more
25	26	27	28	29	30	1
shifter: selvi(Bologna)						
+1 more	+2 more	+2 more	+2 more	+2 more	+2 more	+2 more
2	3	4	5	6	7	8
shifter: iacovacci(Naples)						



XENON COLLABORATION

[Institutes](#)[Full Directory](#)[Shifts](#)[Account ▾](#)[Calendar](#)[Shift Management](#)

Institute Leaderboard

Institute	Shifts all time	2023 ▾
MPIK Heidelberg	90	4
Columbia	89	3
Zurich	83	6
WIS	69	6
Coimbra	66	0
Subatech	65	4
Freiburg	65	10
Muenster	63	0
Nikhef	62	4
LNGS	60	0
NYUAD	60	0
Stockholm	53	4
Bologna	51	8
Mainz	41	2



today

June 2023

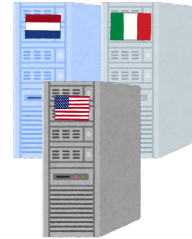
month

week

☒ Assigned☐ Free☐ Training

Sun	Mon	Tue	Wed	Thu	Fri	Sat
28	29	30	31	1	2	3
	shifter: brown(Freiburg)					
4	5	6	7	8	9	10
shifter: brown(Freiburg)						
11						17
shifter: brown(Freiburg)						+2 more
+1 more						
18						24
shifter: selvi(Bologna)						+2 more
+1 more						
25						1
shifter: selvi(Bologna)						+2 more
+1 more						
2	3	4	5	6	7	8
shifter: iacovacci(Naples)						

```
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  _id: ObjectId('62f23098322c5a5b3ae6f4a1')
  start: 2023-05-29T00:00:00.000+00:00
  end: 2023-06-12T21:59:59.000+00:00
  type: "shifter"
  available: false
  multiplier: 2
  institute: "Freiburg"
  shifter: "brown"
  comment: ""
}
```

Summary

- Smaller collaborations such as XENON face unique demand for managing tools
- We developed a web application for member management
- We found it quite easy to build such an application and we made our code open source

GitHub repository: <https://github.com/RiceAstroparticleLab/xenon-users-web>

Illustration:



Yvette Martinez
ymart2



JasonLee4



Shixiao Liang
reallsx



Chris Tunnell
tunnell