

Welcome to the LSSTC enabling science 2021 broker workshop part II

With support from:



Schedule:

<https://www.lsstcorporation.org/meetings/2021-broker-workshop>

Code of conduct

Fostering an **inclusive, barrier-free, and safe space** to the LSST enabling science 2021 Broker workshop part II is paramount. We aim and are committed to ensuring that while attending this event, **every person feels safe, respected and free from harassment and discrimination.**

We ask that you follow these guidelines:

- › **Behave professionally.** Harassment and sexist, racist, or exclusionary comments or jokes are not appropriate. Harassment includes sustained disruption of talks or other events, sexual attention or innuendo, deliberate intimidation, stalking, and photography or recording of an individual without consent. It also includes offensive comments related to race, gender, sexual orientation, disability, physical appearance, body size or religion.
- › All **communication** should be **appropriate** for a professional audience including people of many different backgrounds. Sexual or sexist language and imagery is not appropriate.
- › **Be considerate and respectful to others.** Do not insult or put down other attendees. Critique ideas rather than individuals.

Summary of the brokers-workshop part I

- All talks were recorded and are available at <https://www.youtube.com/playlist?list=PLFA428AMRhWCA1ayJug3b5pK6xdG1Jnav>
- LSST SCs provided extremely important feedback:

Services								
Crossmatch		✓	✓	✓	✓	✓	✓	
Follow up marshal		✓	✓	✓	✓	✓	✓	
Watchlists	✓	✓	✓		✓	✓	✓	
Classification	✓	✓		✓	✓	✓		
Features		✓	✓		✓	✓		
Outliers, anomalies			✓	✓		✓		✓
Data releases	✓				✓		✓	
Reproducibility				✓				✓
Multimessenger streams				✓				

- We received different opinions about the format of the workshop (e.g., breakout rooms), thus we decided to keep the original format.

Goals brokers-workshop part II

1. Presentations and tutorials of products and services by **broker teams**.
2. Proposal of possible **community** standards, benchmarks, or initiatives to achieve more interoperability and resilience.
3. **Legacy**: creation of a high quality repository with the contents of the workshops, including talks and hands-on material.

*First workshop (October 2020):
Current status and requirements.*

*Second workshop (April 2021):
Developments triggered by the first workshop and reflections from the different users and collaborations.*

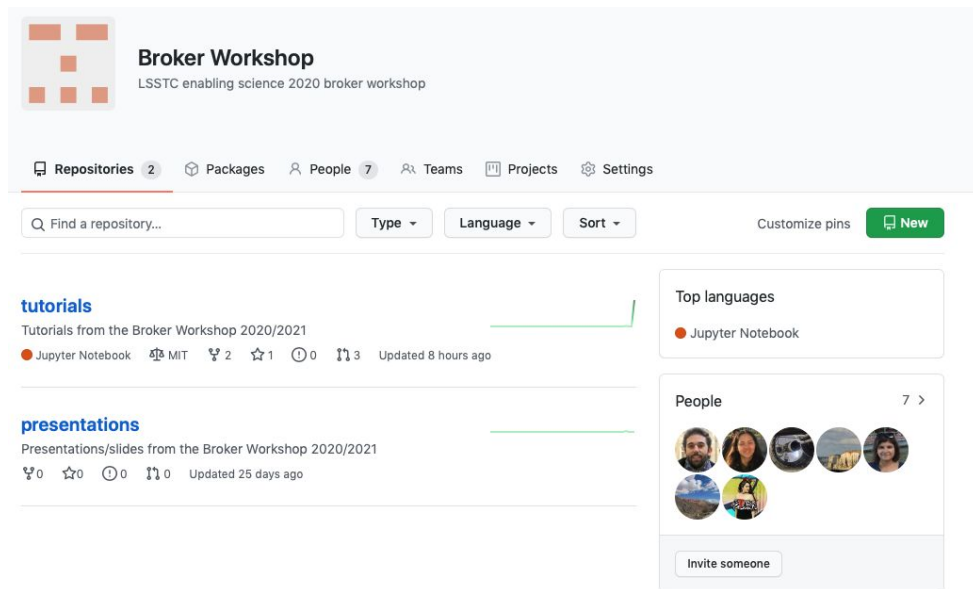
Logistics - slack, zoom and presentations

Please don't forget to keep your mic muted during the presentations!

- Slack channel in LSSTC space **#brokers-workshop-2021**
- Remember to update your **zoom to 5.3 or above**.
- We will record the talks and tutorials, if you are a speaker and don't want to be recorded, please let us know.
- Presentations (please stay on time!):
 - Talks: 20-minute and 10-minute presentations.
 - Tutorials: unless specifically stated all tutorials are 10 minutes long.
- We will be taking questions from both slack and zoom chat. Slack is preferred!
- We **vividly** encourage Early Career Researchers (ECR) to ask first!

Logistics - tutorials

- The tutorials and presentations are available at: <https://github.com/broker-workshop>
- You can run the tutorials by yourself in the cloud service provided by each broker team (such as Google colab or JupyterHub).



The screenshot shows the GitHub repository page for 'Broker Workshop'. The repository is owned by 'LSSTC' and is described as 'enabling science 2020 broker workshop'. The page has a navigation bar with links to 'Repositories' (2), 'Packages', 'People' (7), 'Teams', 'Projects', and 'Settings'. Below the navigation bar is a search bar with the placeholder text 'Find a repository...'. To the right of the search bar are filters for 'Type', 'Language', and 'Sort', along with a 'Customize pins' link and a 'New' button. The main content area displays two repository items: 'tutorials' and 'presentations'. The 'tutorials' item is a Jupyter Notebook repository from MIT, with 2 forks, 1 star, and 0 issues, updated 8 hours ago. The 'presentations' item is a repository of presentations/slides from the Broker Workshop 2020/2021, with 0 forks, 0 stars, and 0 issues, updated 25 days ago. On the right side of the page, there is a 'Top languages' section showing 'Jupyter Notebook' as the top language, and a 'People' section showing 7 contributors.

Broker Workshop
LSSTC enabling science 2020 broker workshop

Repositories 2 Packages People 7 Teams Projects Settings

Find a repository... Type Language Sort Customize pins New

tutorials
Tutorials from the Broker Workshop 2020/2021
Jupyter Notebook MIT 2 forks 1 star 0 issues Updated 8 hours ago

presentations
Presentations/slides from the Broker Workshop 2020/2021
0 forks 0 stars 0 issues Updated 25 days ago

Top languages
Jupyter Notebook

People 7 >
Invite someone

🔗 main ▾

🔗 5 branches

🏷 0 tags

Go to file

Add file ▾

📄 Code ▾



fforster Fixed site name

b82842c 3 days ago 🕒 55 commits

📁 ALeRCE	Fixed site name	3 days ago
📁 AMPEL	added required image for Extragalactic-AMPEL notebook	3 days ago
📁 ANTARES	Added ANTARES notebooks	4 days ago
📁 Lasair	removed tar	4 days ago
📁 Pitt-Google	adds link to full tutorial	3 days ago
📁 PointofInterest	Added notebook from Point of Interest	4 days ago
📁 SCIMMA	Added SCIMMA notebooks	4 days ago
📁 fink	Add missing deps in the requirements.txt	4 days ago
📁 fritz	add mobile screen caps	4 days ago
📄 .gitignore	Remove unused files, and add gitignore	5 days ago
📄 LICENSE	Create LICENSE	5 days ago
📄 README.md	updates Colab link	3 days ago

tutorials

Tutorials from the Broker Workshop 2020/2021. Times are in UTC.

April 13th

14:30 - 15:15 Tutorial: Broker interfaces I (45min)

- Pitt-Google - [Colab link](#)
- Fink
- AEON/TOM
- ANTARES

15:20 - 16:05 Tutorial: Broker interfaces II (45min)

- SCIMMA
- Lasair
- ALerCE
- AMPEL

17:45 - 18:30 Tutorial: Broker interfaces III + Solar System I (45min)

- Broker interfaces III:
 - Babamul
 - Skyportal/Fritz
- Solar System I
 - Fink - [Colab link](#)
 - ANTARES - [Colab link](#)



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Conectar

Pitt-Google Broker Tutorial: Code Samples

Learning Objective	Section	Notes
1. Understand What, Where, How to access	1) Introduction	ZTF data. Google Cloud SDK (Python, command-line). <code>pgb-utils</code> Python package.
2. Access the data	3) BigQuery Database	Alert data (no cutouts), lightcurves, cone search. Standard SQL queries (Python, command-line). <code>pgb-utils</code> helper functions.
	4) Files in Cloud Storage	Alert packets in Avro file format (includes cutouts). Direct downloads.
3. Process the data	5) Apache Beam data pipelines	End-to-end, working examples with templates for user-defined functions.

This "Code Samples" notebook is a condensed version of the full [Pitt-Google-Tutorial.ipynb](#), which you can refer to for further information.

1) Introduction

↳ 4 celdas ocultas

2) Setup

[] ↳ 9 celdas ocultas

3) BigQuery Database

[] ↳ 31 celdas ocultas

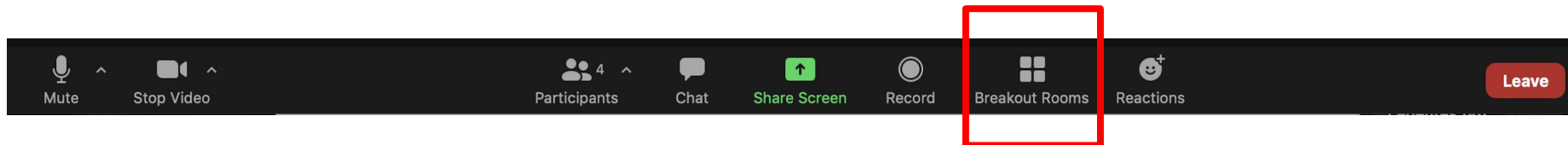
4) Files in Cloud Storage

Logistics - discussion sessions

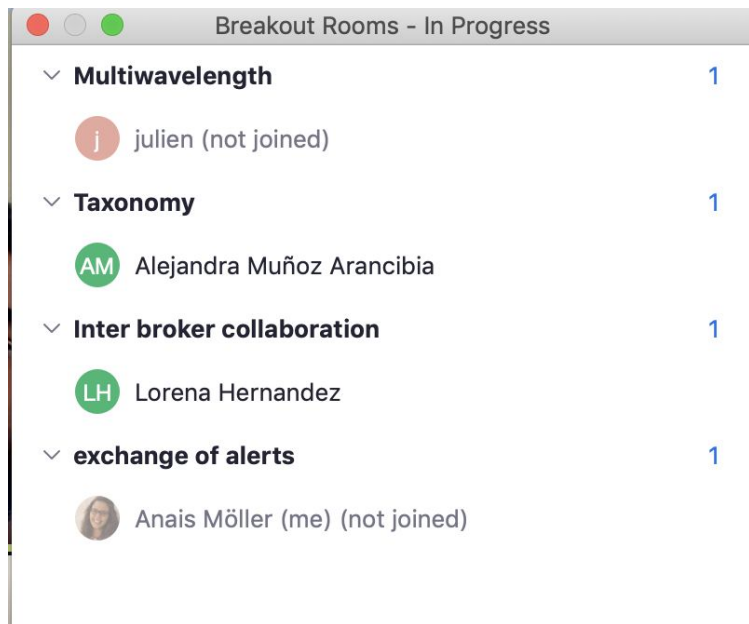
- Three discussion sessions with parallel breakout rooms:
 - Output of brokers: output alerts, APIs, standardization, benchmarks
 - Downstream from brokers: role of TOMs/Skyportal, follow-up, multimessenger astronomy
 - Science collaborations feedback: what is missing from brokers?
- You can propose topics for the parallel sessions in the slack channel.
- Please volunteer as moderator.
- Please keep track of the time.
- You or a representative of the group should prepare a short (1 minute) summary of your discussion to be presented on the last day.
- Please encourage the younger/students/ECR members of the audience to start the discussion with questions and topics to discuss.
- Foster an inclusive, barrier-free, and safe space for discussions!

Logistics - joining breakout sessions

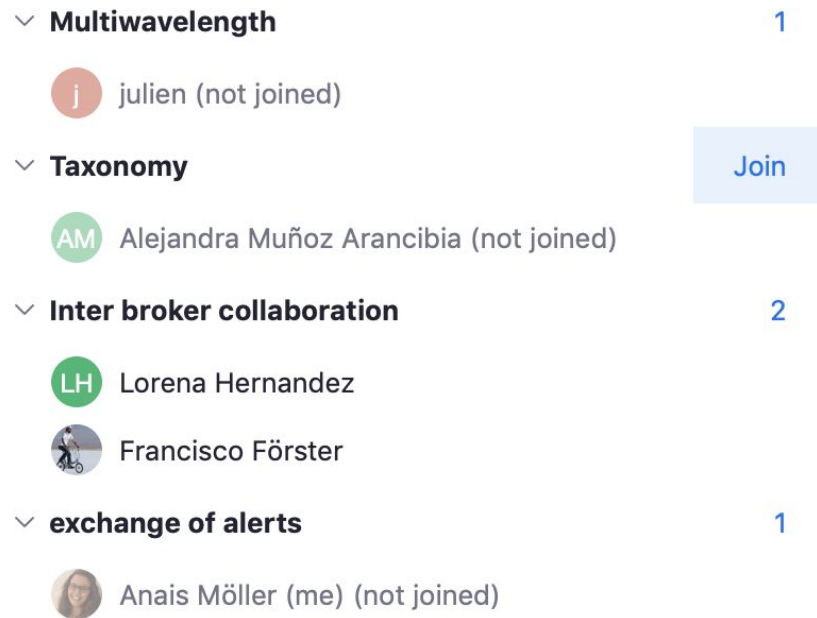
1.



2.



3.



Today's schedule

Time in UTC but if you click the time: different time zones

Thanks to all moderators!

Hope you all have a productive time!

The organizing team is here to help

LOC:

Francisco Förster Burón
Lorena Hernández García
Emille Ishida
Anais Möller
Alejandra Muñoz Arancibia
Julien Peloton
Paula Sánchez Sáez

Students:

Marco Alban
Santiago Bernal
Miguel López
Vicente Maldonado
Javier Silva
Belen Sotomayor
Francisca Suárez

Agenda for Day 1 (UTC, Apr 13th)

UTC time, Topic

- **14:00** Introduction & logistics (10 min)
- **14:10** Vera C. Rubin observatory & LSST, Melissa Graham (20 min)
- **14:30** Tutorial: Broker interfaces I (45min) Moderator: TBD
 - Pitt-Google
 - Fink
 - AEON/TOM
 - ANTARES
- **15:15** 5 min break
- **15:20** Tutorial: Broker interfaces II (45min) Moderator: Eleni Graikou
 - SCIMMA
 - Lasair
 - ALERCE
 - AMPEL
- **16:05** 30 min break
- **16:35** Discussion: Output from brokers (50min)
- **17:25** Summary of discussion (15min)
- **17:40** 5 min break
- **17:45** Tutorial: Broker interfaces III + Solar System (45min) Moderator: Keivan Stassun
 - Broker interfaces III:
 - Skyportal/Fritz
 - Solar System
 - Fink
 - ANTARES
 - ALERCE
- **18:30** End

