

# New advances in NIR type Ia supernova science

Pittsburgh, 2018 April 11-13

## Welcome and introduction

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University of Pittsburgh



# Goals

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# (your) Goals

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- Status of NIR SNe Ia studies, where have we come since the last Pittsburgh meeting, where do we go, new collaborations?
- Great opportunity for interaction with observers and theorists
- Fresh knowledge of SNIa standardization in the NIR
- Fun
- Reconnecting with colleagues and collaborators. Discussing the future of the field.
- The opportunity to get involved in new projects with interesting people.
- Discuss progress of NIR observations of SNe Ia in cosmology
- Learning the status of NIR SN surveys and datasets, new NIR LC models + how they are being combined with the optical, and how they deal with dust and intrinsic color, are there ways to detect events that are peculiar in the NIR with LSST optical observations.
- I am interested in hearing about the diversity (or lack) of model predictions for late-time spectra, so that constraints can be made based on observations. Also interested in observational signatures of Ia companions and at what times they are expected.
- To expand collaborations and learn about infrared data (upcoming instruments)
- Meet the community that is working with optical + near infrared observations of SN Ia.
- Know about other approaches to infer relative distances from optical + near-infrared light curves of SN Ia.
- Get involved in future projects to collect, analyze and infer distances from SN Ia in optical + near infrared.
- Insights
- Having the different groups work together towards a plan for the future!
- Concrete plans on how to address outstanding SN Ia issues with observations in the near and mid-IR.
- New ideas, update on SN Ia fitting
- A frank discussion between theorists and observers on which triggering mechanisms are still on the table, and what further observations are needed.
- Collaboration and scientific discussion
- To learn about NIR surveys, recently concluded and ongoing, present our recent work and collaborate on future missions
- To learn a lot!
- Plan for joint analysis and calibration; Political and scientific plan for future NIR ground+space program



# Schedule



# Schedule

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	Wednesday	Thursday	Friday
9:00			
	1	3	5
11:00			6
13:00			
	2	4	7
15:00			
			8
17:00			

1. Surveys/Observations outlook

2. Theory/Simulation/What modelers need?

3. Standardization/LC-fitter Optical+NIR

4. Dust/Intrinsic color

5. Spectroscopy

6. Peculiar SNeIa

7. NIR calibration

8. Technical capabilities/Future surveys

# Legacy

<https://github.com/snianir>

The screenshot shows the GitHub profile page for the organization 'snianir'. The header includes the GitHub logo, a search bar, and navigation links for 'Pull requests', 'Issues', 'Marketplace', and 'Explore'. The profile section features the organization's name 'snianir' and a blue square logo. Below this are tabs for 'Repositories' (2), 'People' (1), 'Teams' (0), 'Projects' (0), and 'Settings'. A search bar for repositories is present, along with filters for 'Type: All' and 'Language: All'. The main content area displays two repositories: 'talks' and 'webpage'. The 'talks' repository is updated 'a minute ago'. The 'webpage' repository is described as 'SNE Is NIR workshop', is in HTML, and was updated '20 hours ago'. A commit history graph is visible for the 'webpage' repository. On the right sidebar, the 'Top languages' section shows 'HTML'. The 'People' section lists one member, 'lgalbany' (Lluís Galbany), with an 'Invite someone' button below.

GitHub navigation: Pull requests, Issues, Marketplace, Explore

Organization: snianir

Repository tabs: Repositories (2), People (1), Teams (0), Projects (0), Settings

Search: Search repositories... Type: All Language: All Customize pinned repositories New

Repository list:

- talks**  
Updated a minute ago
- webpage**  
SNE Is NIR workshop  
HTML Updated 20 hours ago

Top languages: HTML

People: 1 >

lgalbany  
Lluís Galbany

Invite someone

# Legacy

<https://github.com/snianir>

The screenshot shows the GitHub interface for the repository `snianir/talks`. At the top, there's a navigation bar with links for Pull requests, Issues, Marketplace, and Explore. Below this, the repository name `snianir/talks` is displayed, along with buttons for Unwatch (1), Star (0), and Fork (0). A tab bar shows options for Code, Issues (0), Pull requests (0), Projects (0), Wiki, Insights, and Settings. The main content area indicates that there is no description, website, or topics provided, with an `Edit` button and a link to `Add topics`. Below this, statistics show 1 commit, 1 branch, 0 releases, and 1 contributor. A row of buttons includes `Branch: master`, `New pull request`, `Create new file`, `Upload files`, `Find file`, and `Clone or download`. The file list shows `igalbany` creating `README.md` as the latest commit 43 seconds ago. Below the file list, the `README.md` content is displayed, featuring the title `talks` and the text `Please upload your talks here!`.



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