### New advances in NIR type la supernova science

Pittsburgh, 2018 April 11-13

# Welcome and introduction

Lluís Galbany (U. Pitt)





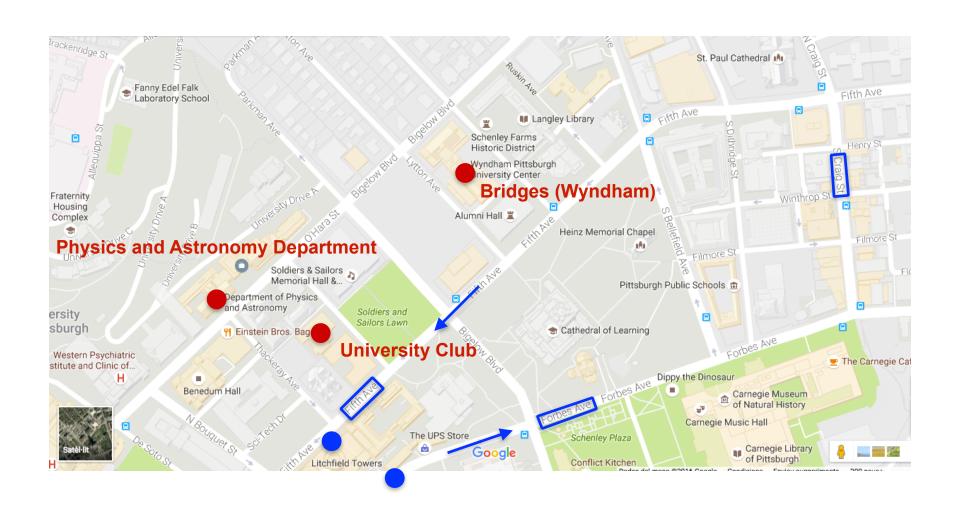
#### Goals



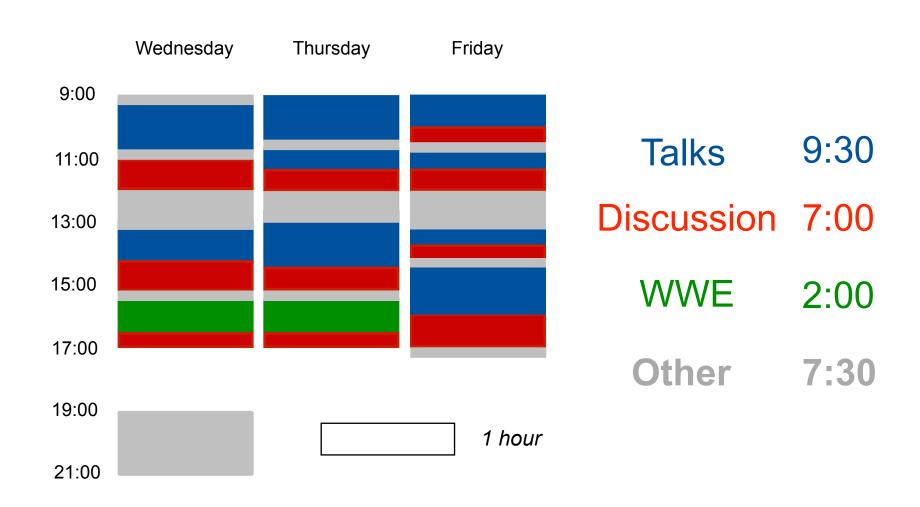
# (your) Goals

- 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 la 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

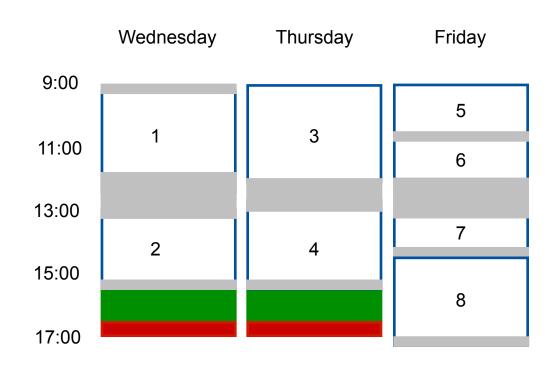
### Locations



### **Schedule**



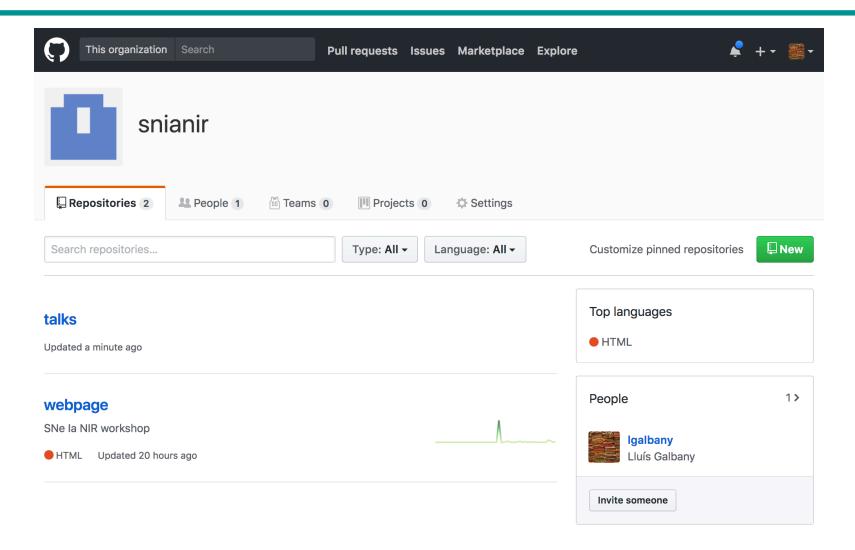
#### **Schedule**



- 1. Surveys/Observations outlook
- 2. Theory/Simulation/What modelers need?
- 3. Standardization/LC-fitter Optical+NIR
- 4. Dust/Intrinsic color
- 5. Spectroscopy
- 6. Peculiar SNela
- 7. NIR calibration
- 8. Technical capabilities/Future surveys

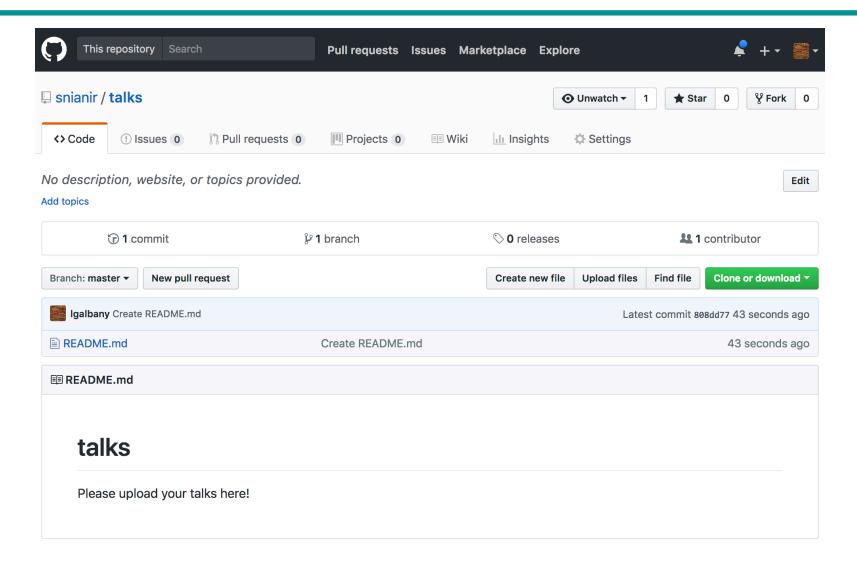
## Legacy

## https://github.com/snianir



## Legacy

## https://github.com/snianir



### New advances in NIR type la supernova science

Pittsburgh, 2018 April 11-13



