

Galaxies

R meet

B at Cabo de Gata

S

Scientific introduction



September 23-27, 2013

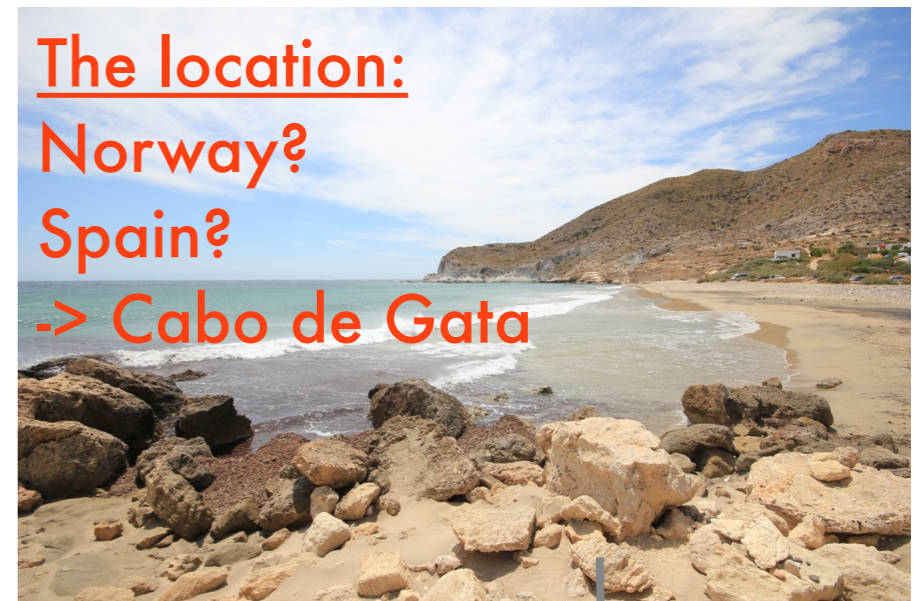
Hotel Cala Grande, Las Negras (Cabo de Gata, Almería, Spain)

How a conference is born



The idea:
GRBs? hosts? statistical samples? →
starbursts?!? ...xxx?!?!?
changing into another field
→ merging the two fields! :-)

The location:
Norway?
Spain?
-> Cabo de Gata



Find a hotel ↓



Galaxies Reunite at Cabo de Gata

Organizers:
Christina Thöne
Antonio de Ugarte Postigo
Javier Gorosabel
José M. Vilchez
Sebastian Sanchez
Carolina Kehrig
Ricardo Amorín

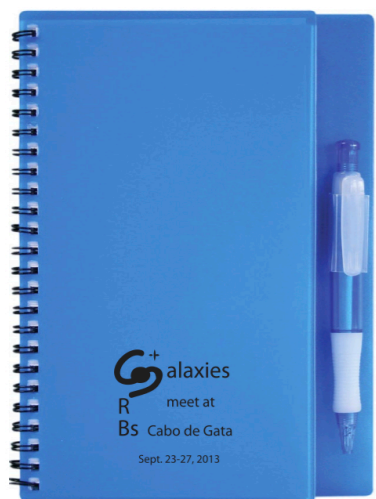
September 23-27, 2013

www.iaa.es/cabodegata2013
cabodegata2013@iaa.es

Hotel Cala Grande, Las Negras (Cabo de Gata, Almería, Spain)

Topics: Influence of massive stars on their environment, Galaxy evolution, Starburst galaxies, Star-formation triggers, High redshift star-forming galaxies, Stellar populations and their evolution, Star-formation and chemical abundances, High resolution observations of star-forming galaxies, Star evolution and end states of massive stars.

Announce it ←



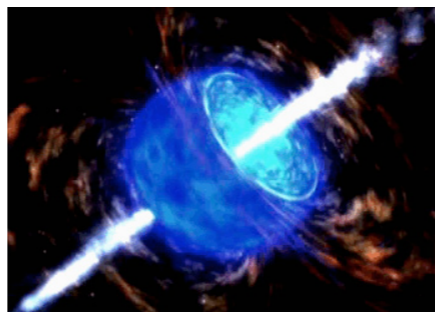
Diversity of GRBs & SNe

Merger

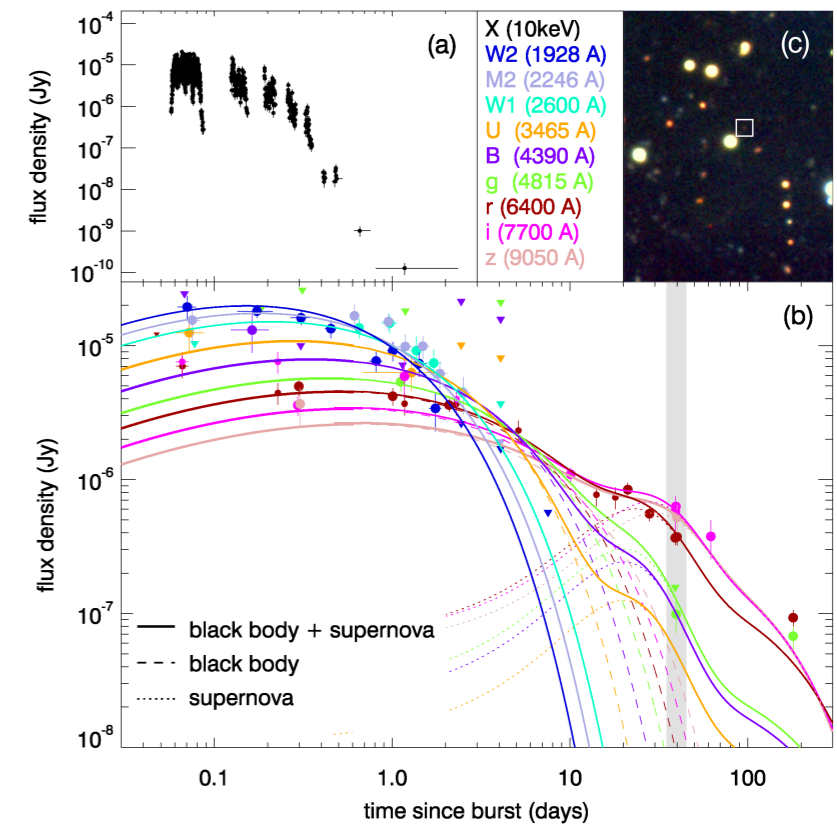
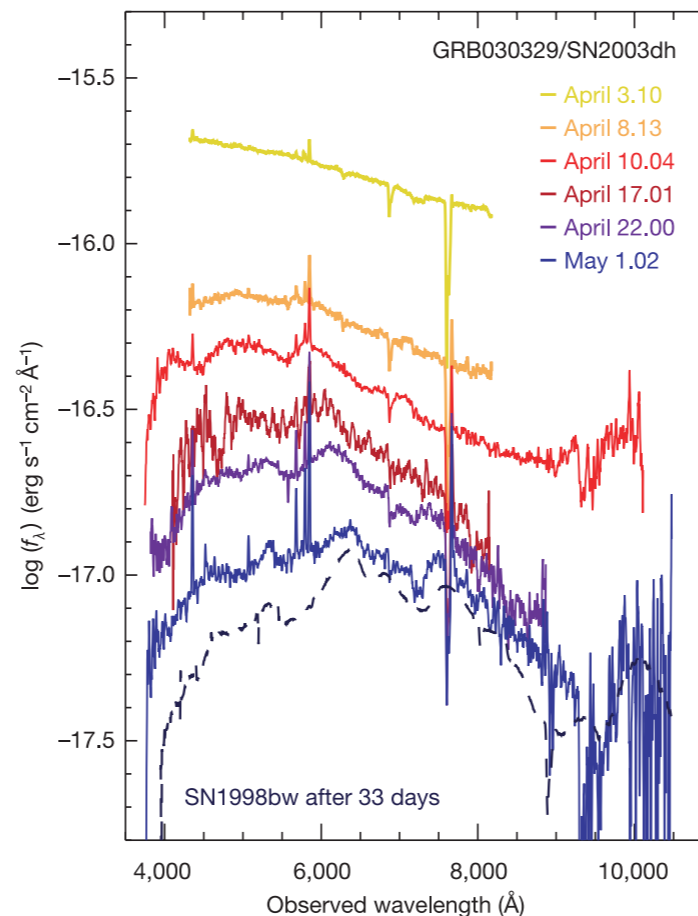
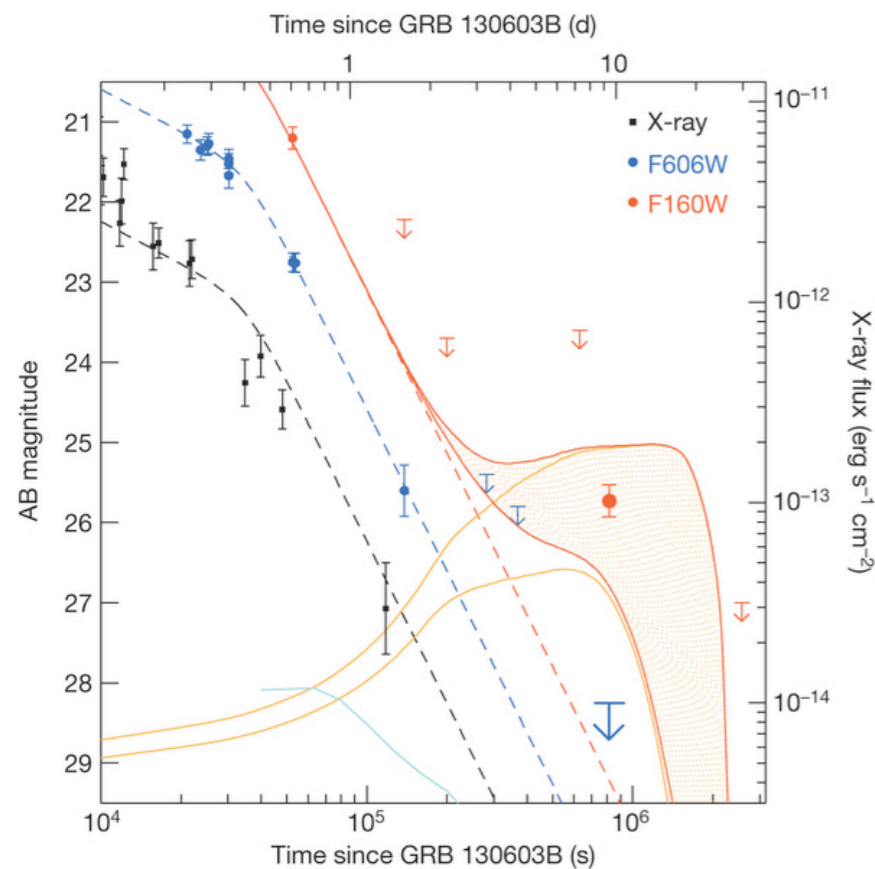
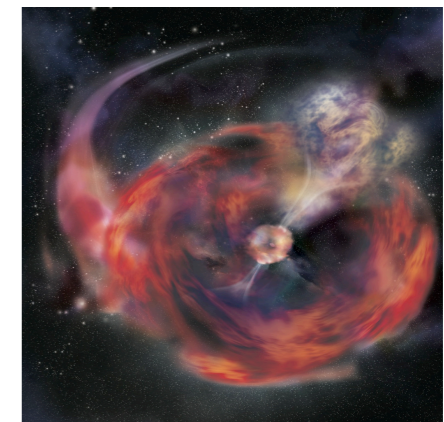


GRBs

Collapsar



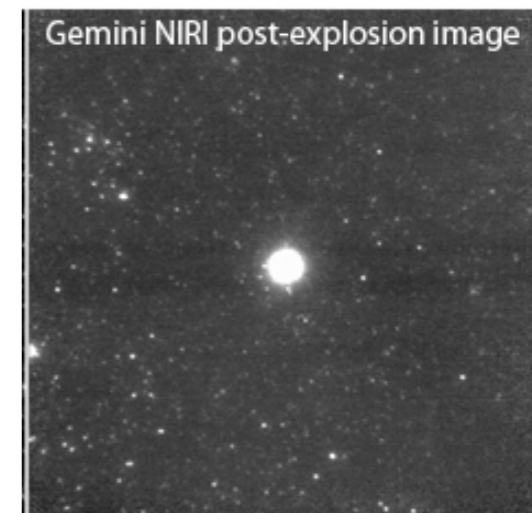
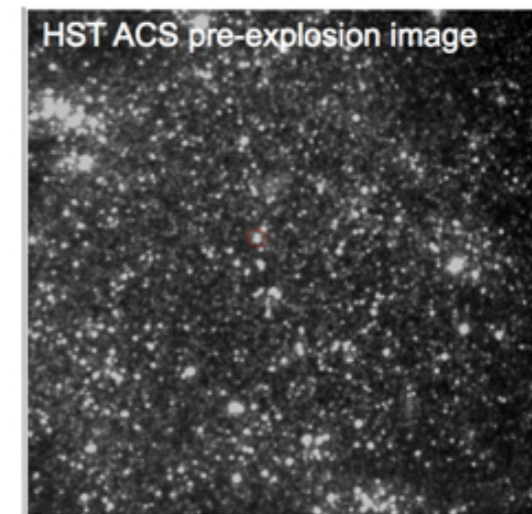
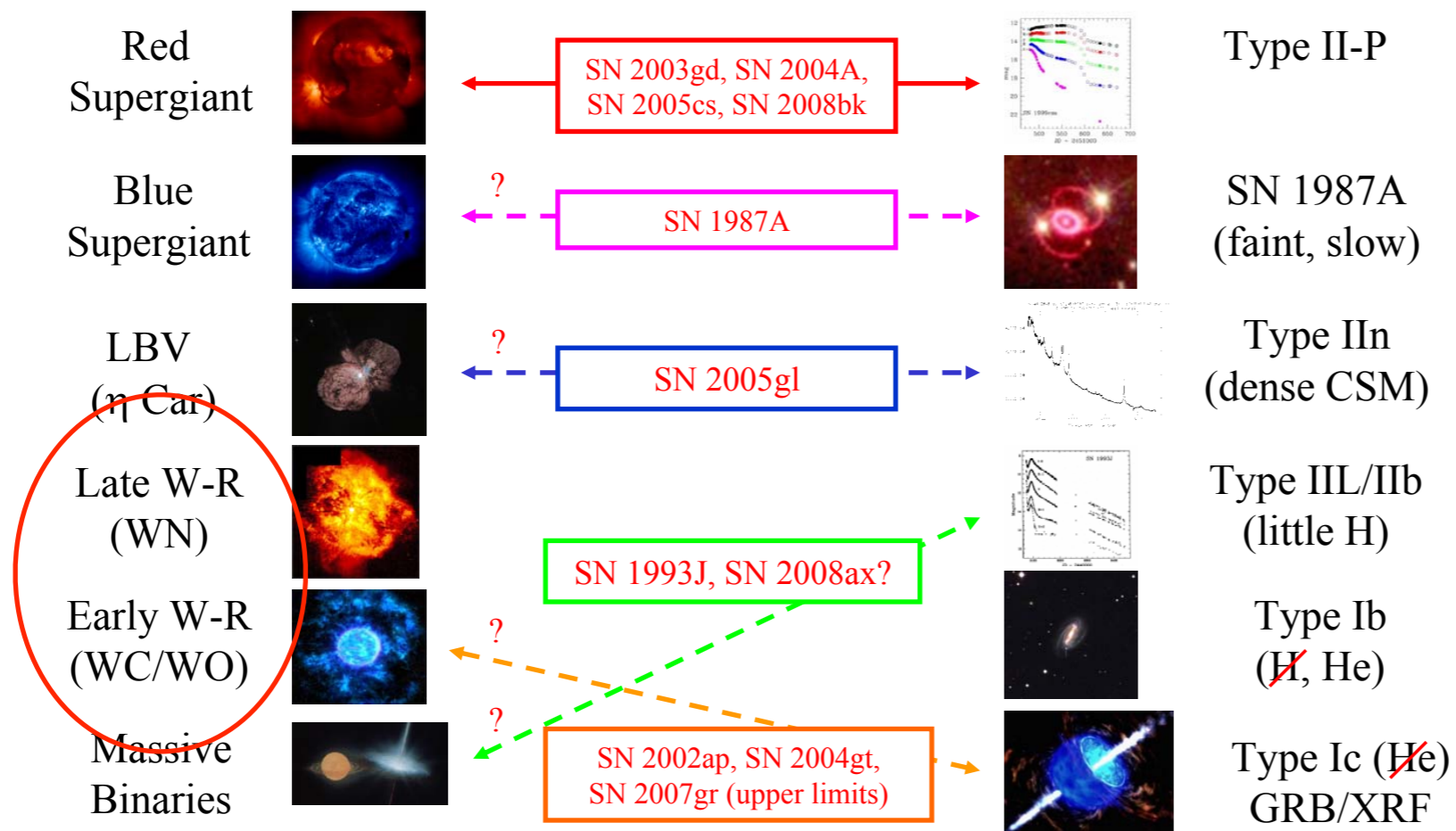
He-star merger??



Diversity of GRBs&SNe

Supernovae

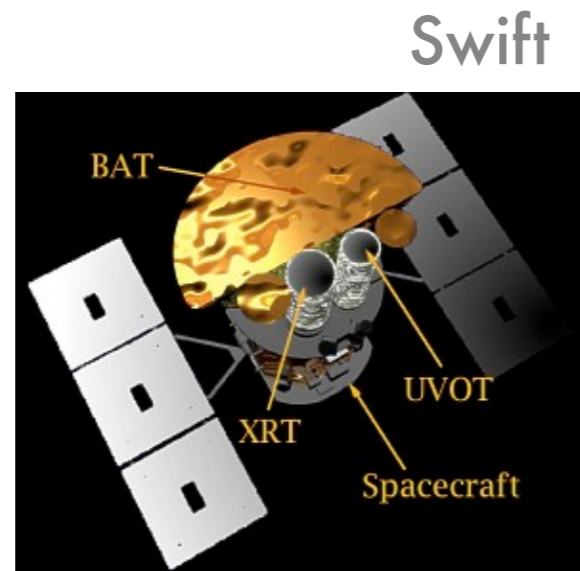
The Progenitor – SN Map



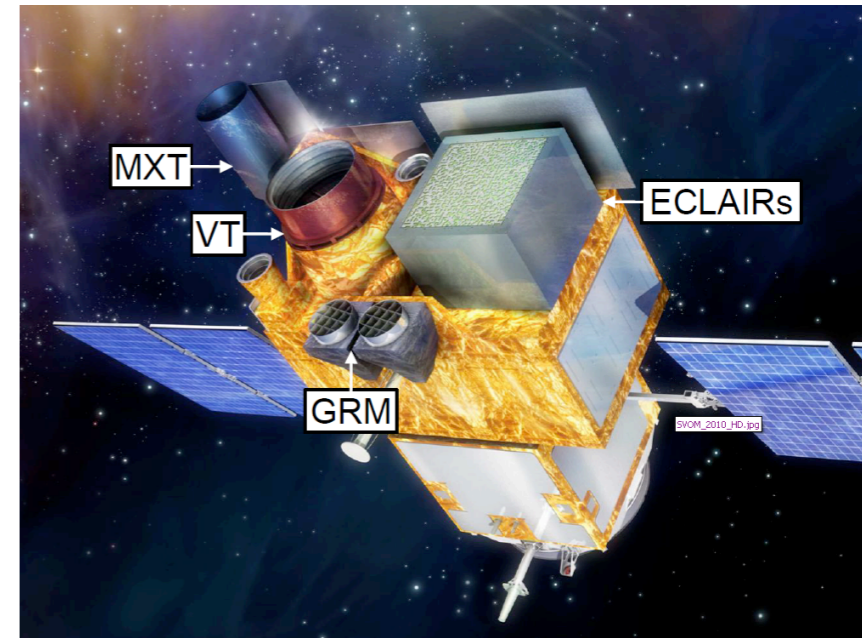
Based on Gal-Yam et al. 2007; updated

Observational methods

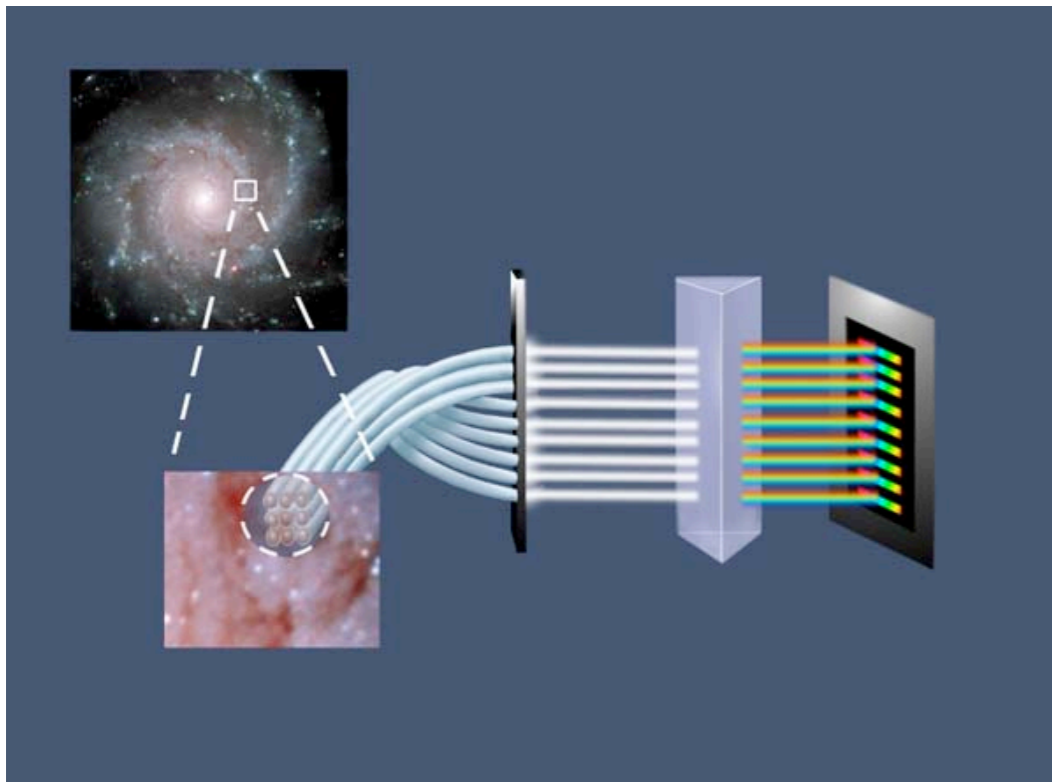
Detecting
GRBs



SVOM



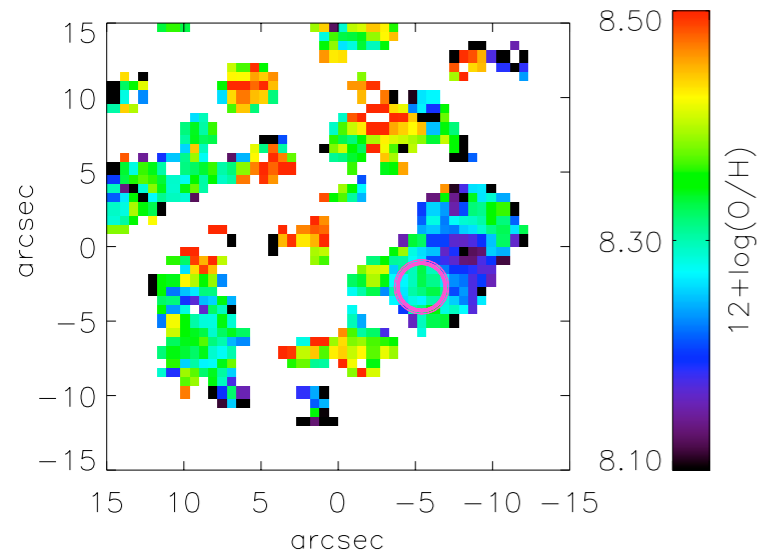
3D spectroscopy



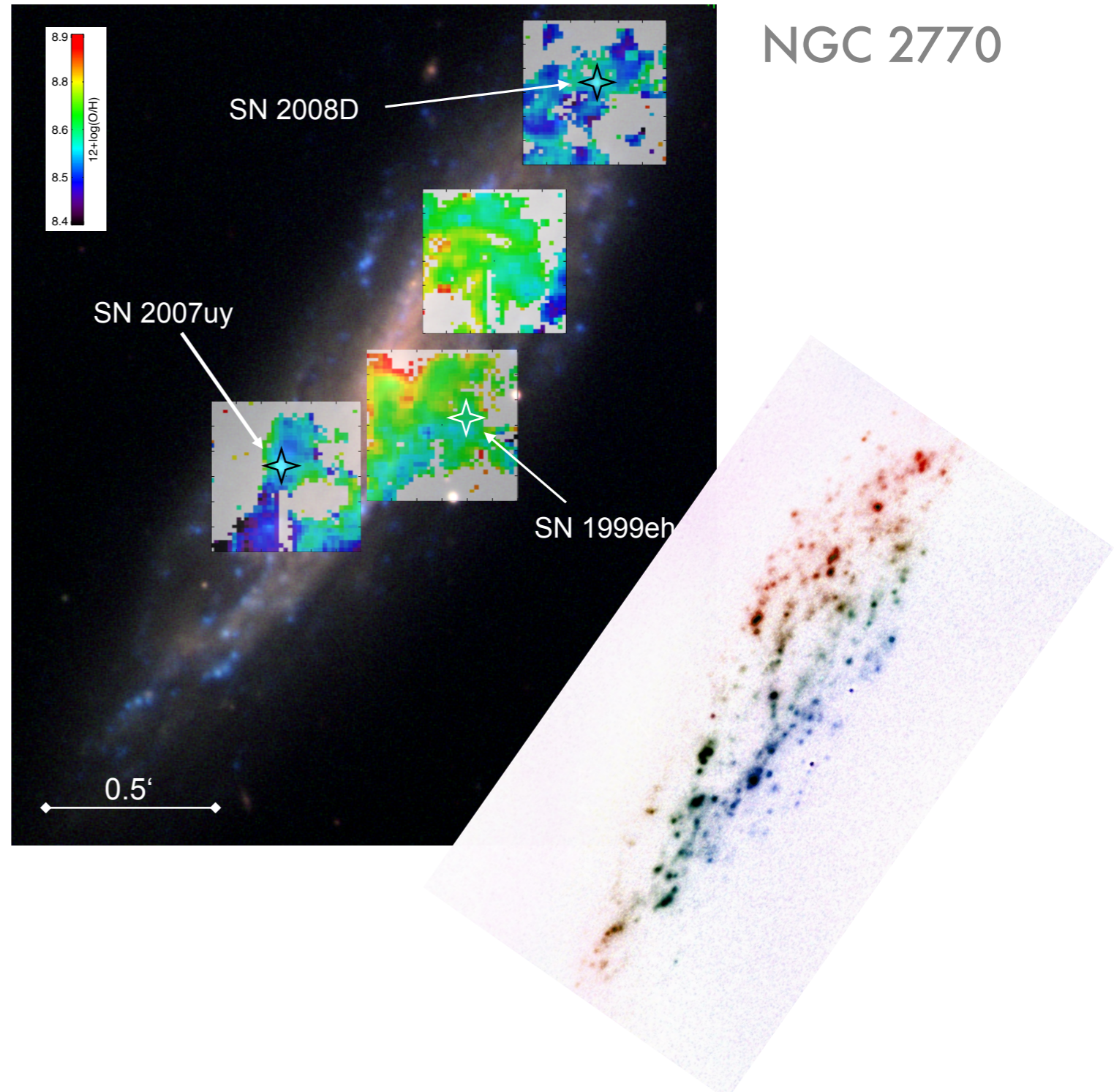
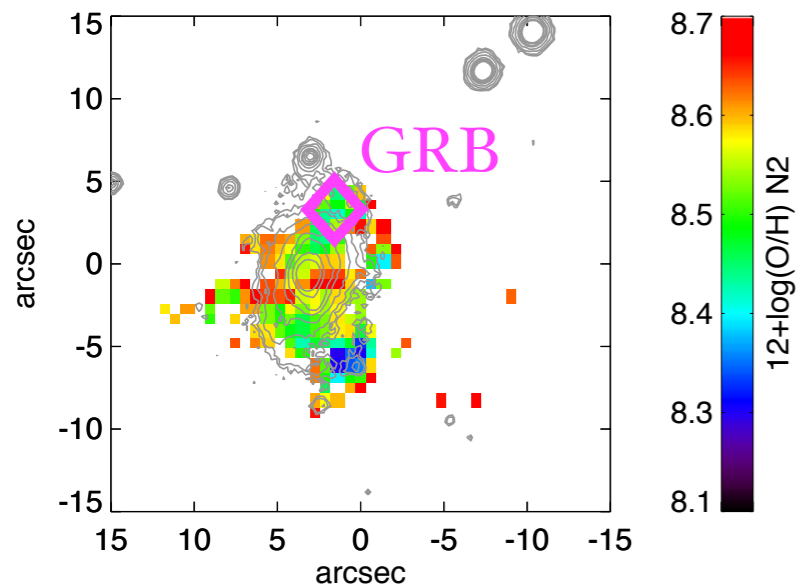
The local optical playground

GRB&SN hosts in 3D

GRB980425

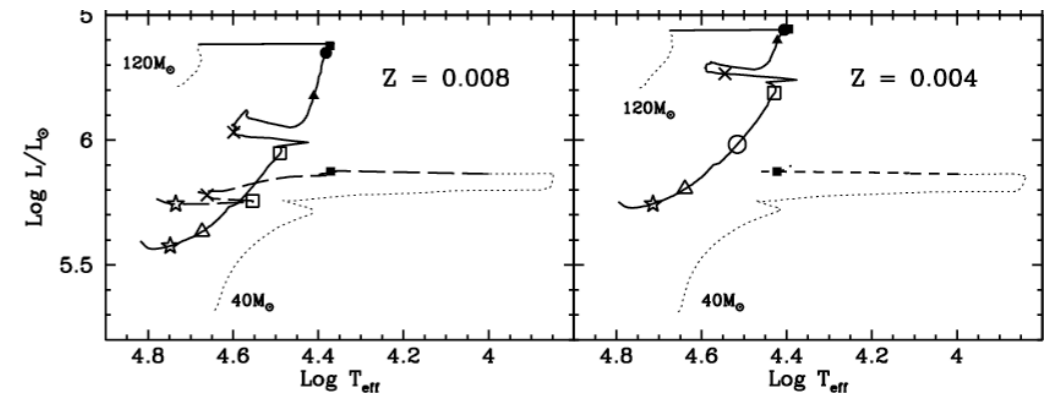
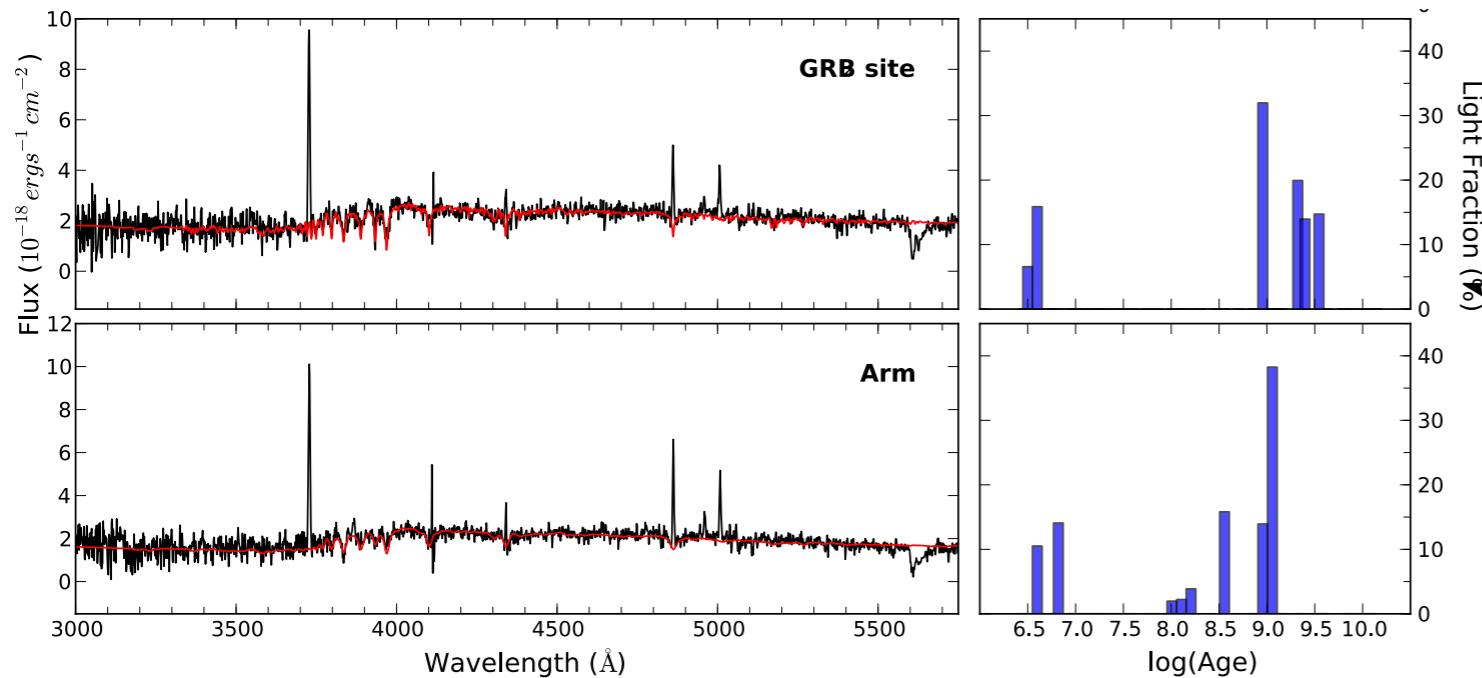


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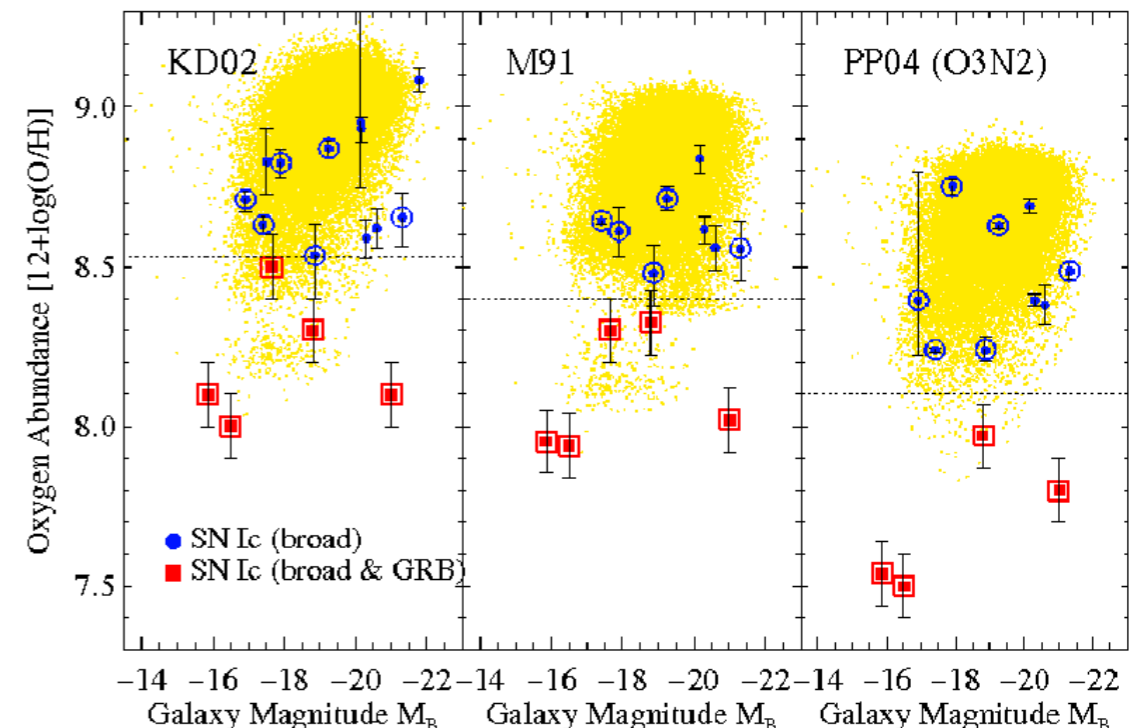
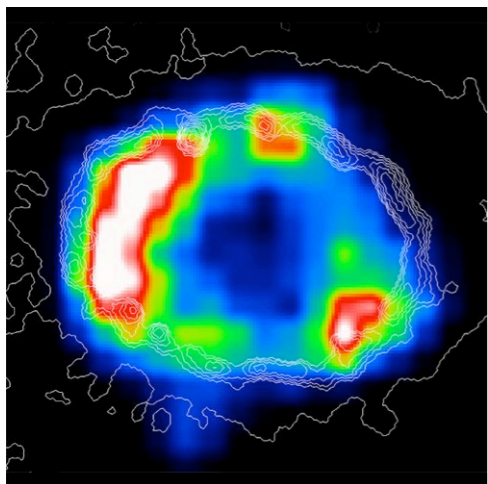
The environment

Stellar population modeling & SF-history



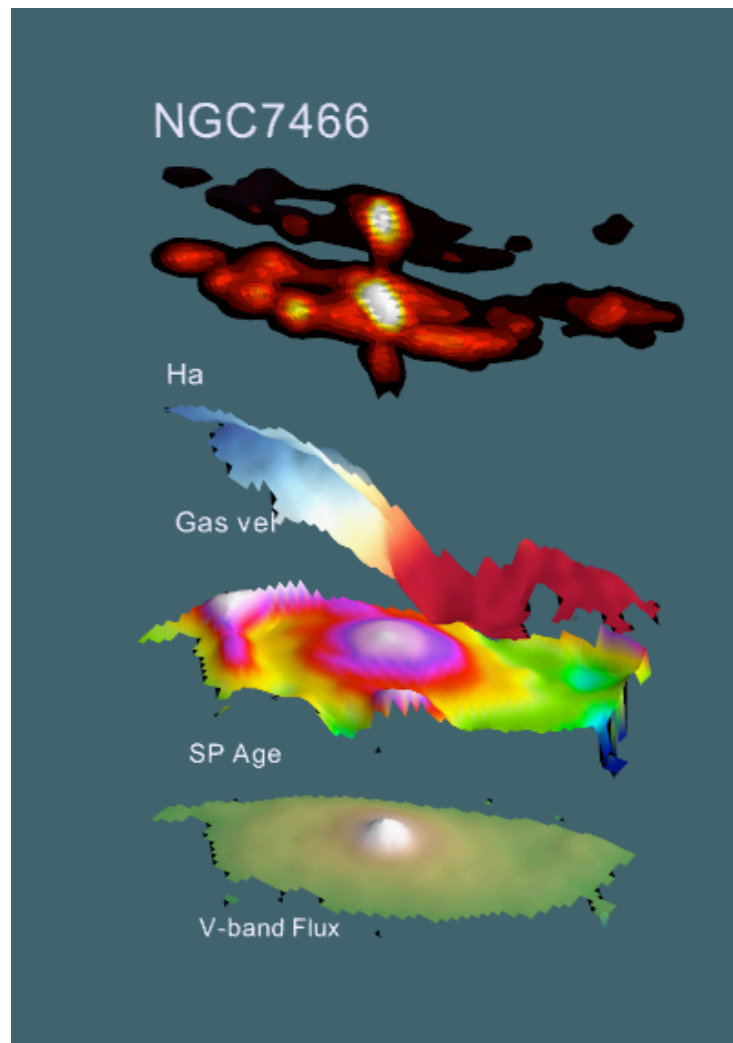
The big metallicity question

Dust from & around SNe/GRBs



Stars ↔ Surroundings

3D surveys of nearby galaxies



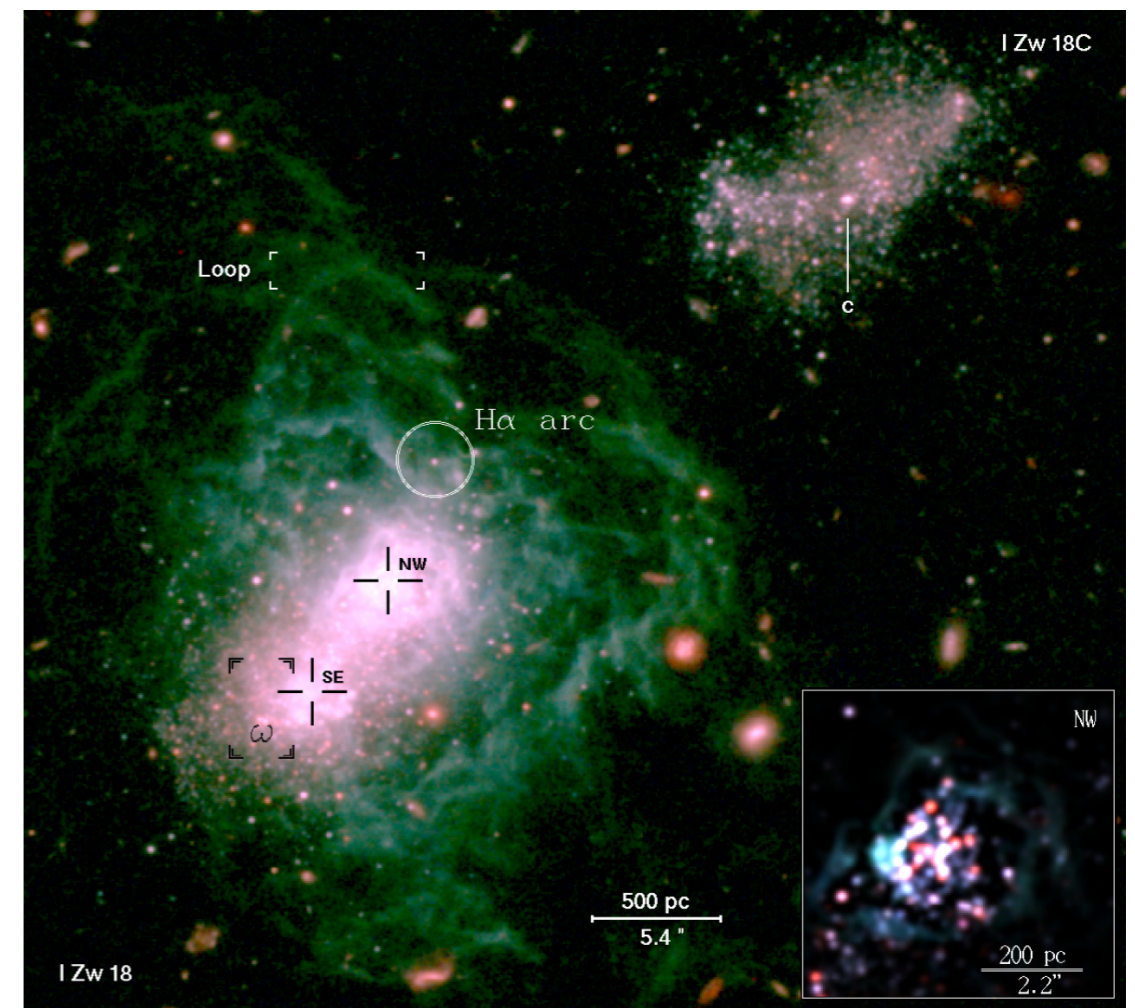
missing:
supergalactic winds



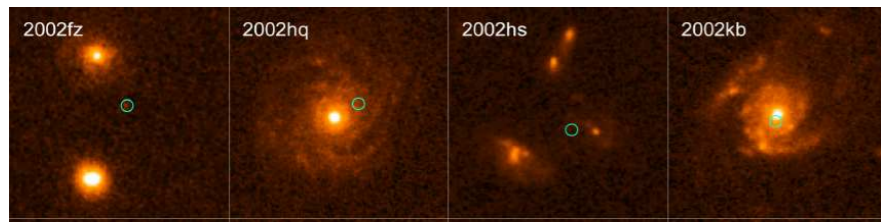
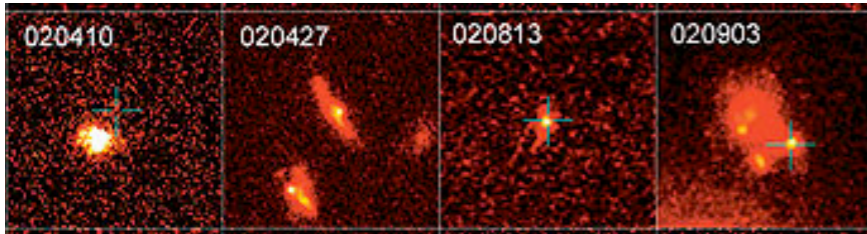
Low-Z galaxies

Which stars do they host?

What do the stars with their hosts?

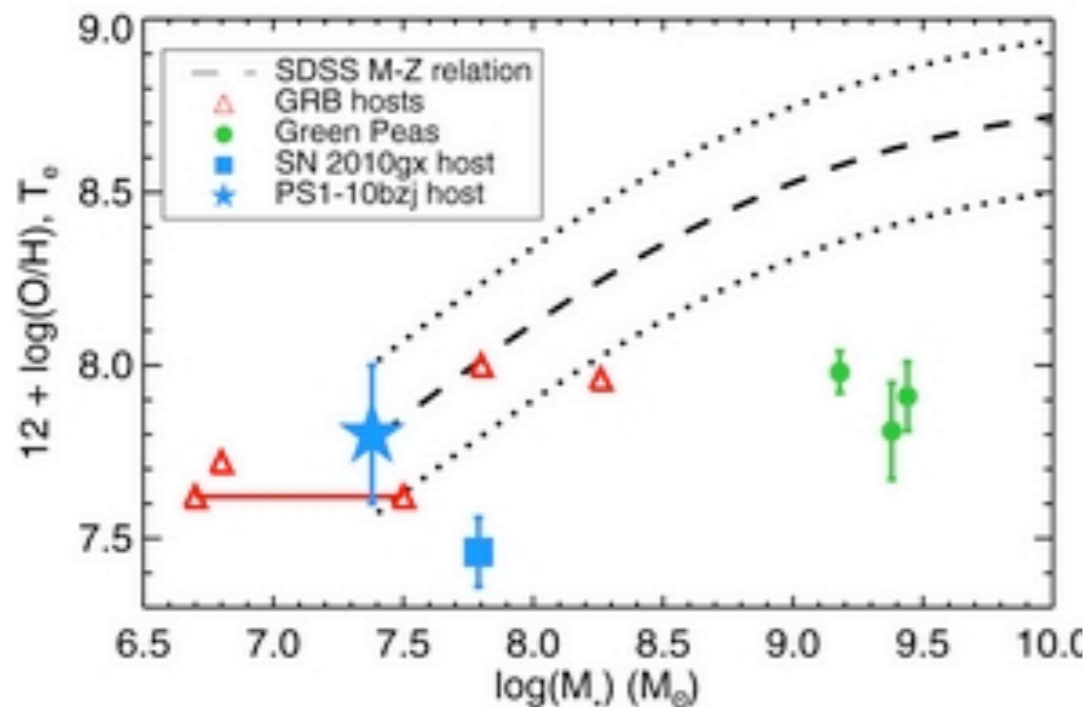


GRB&SN hosts

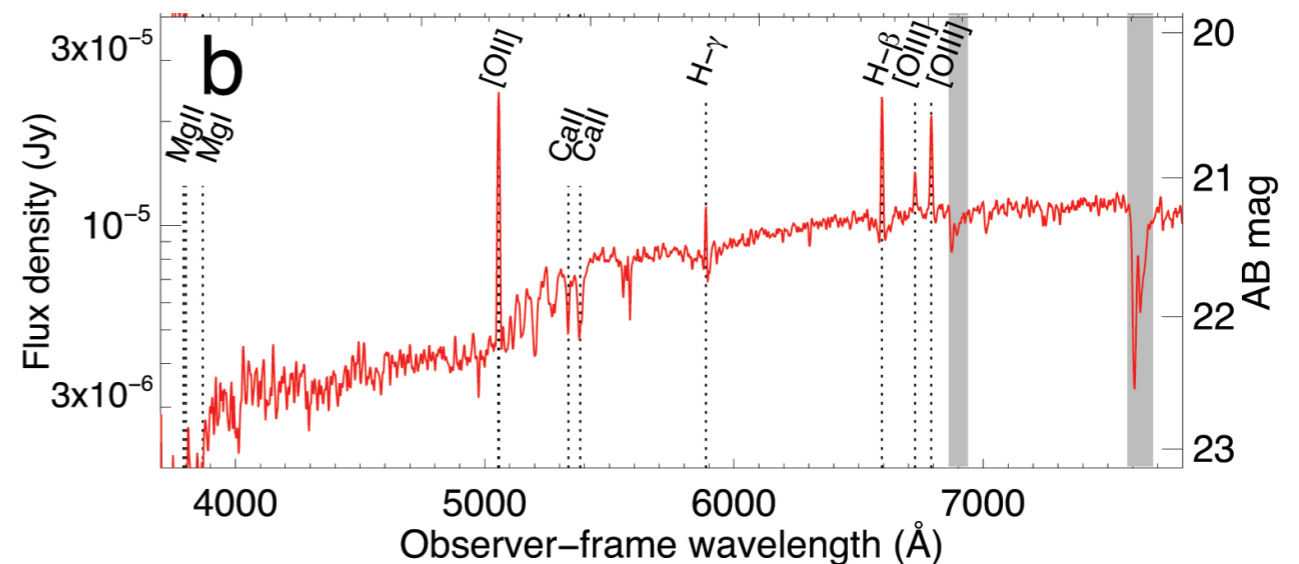
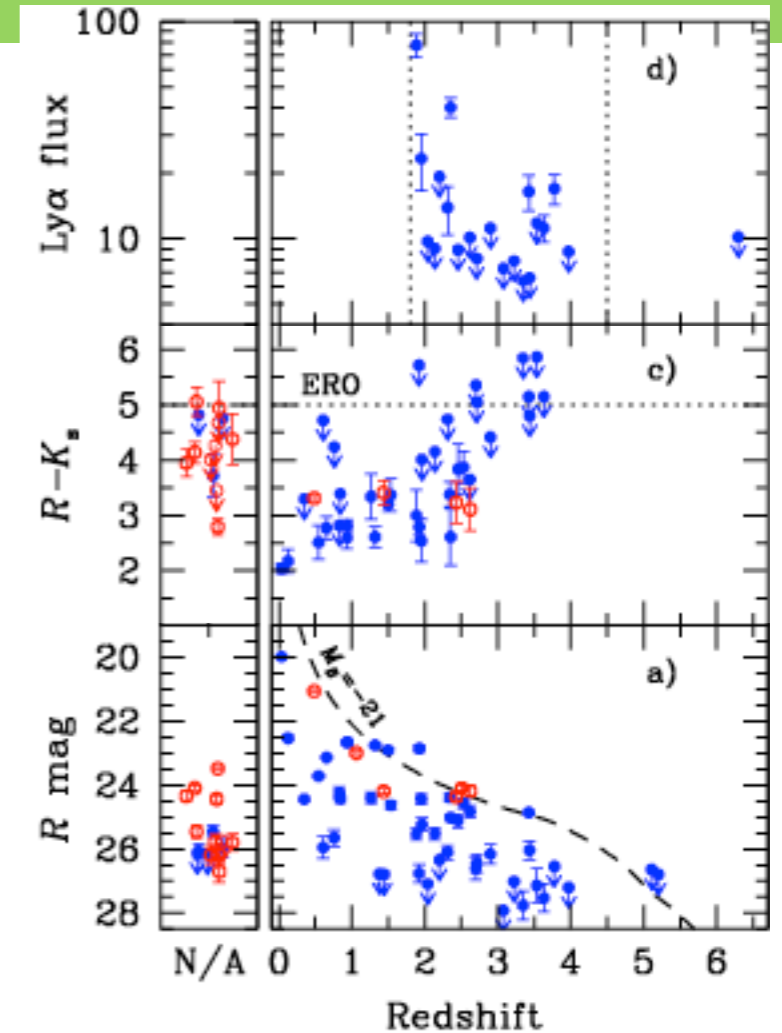


long GRB
hosts

super-luminous SN hosts:
similar to GRBs??

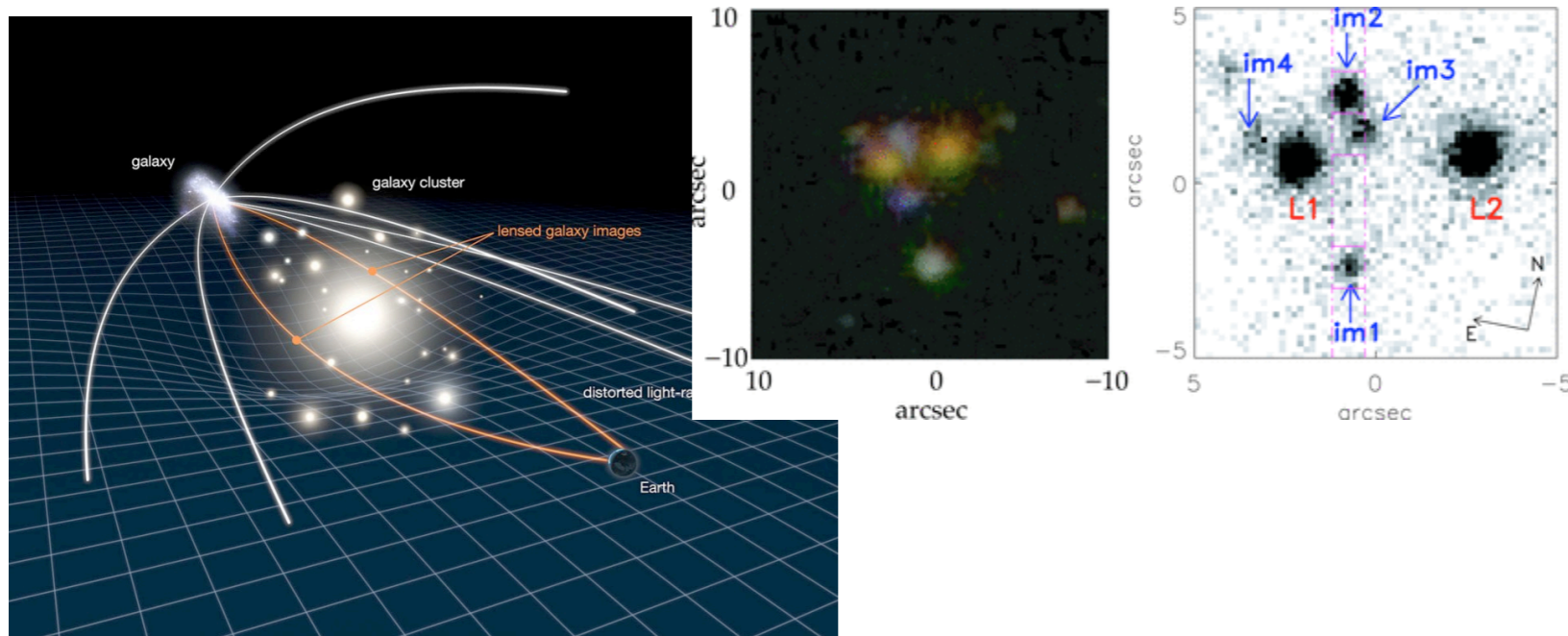


short GRB
hosts

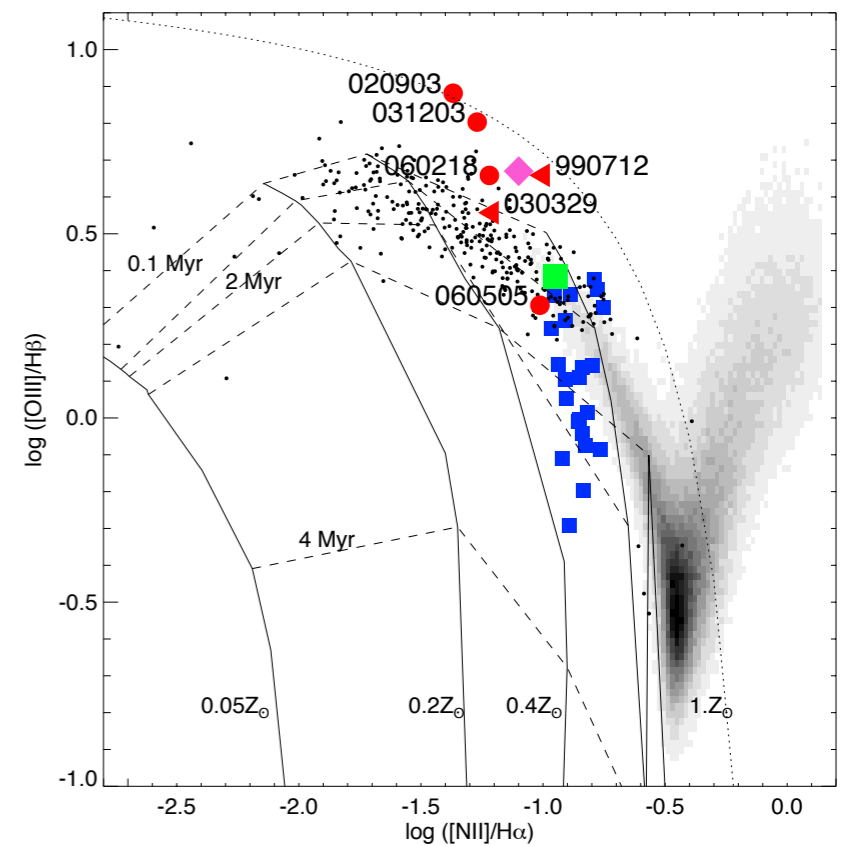


SF galaxies at all redshifts

Lensed high-z galaxies

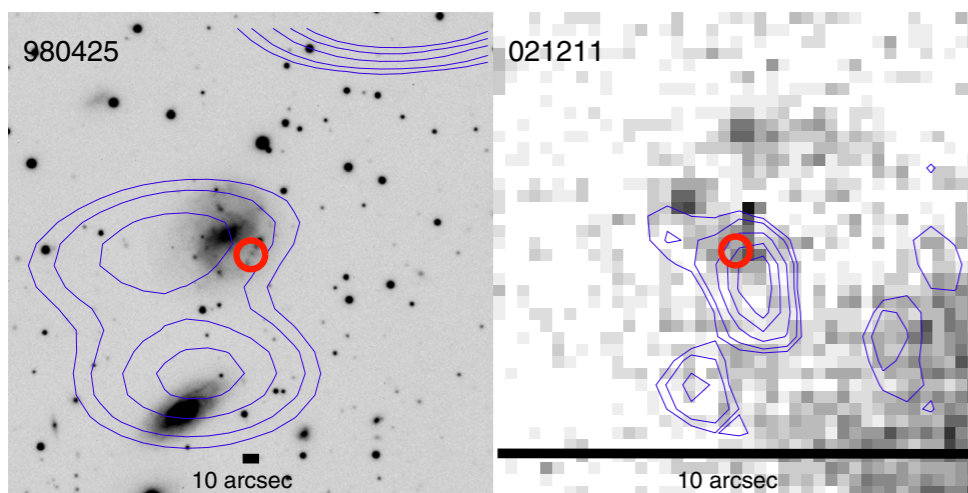


Which class of galaxies could GRB hosts be?



What triggers massive SF??

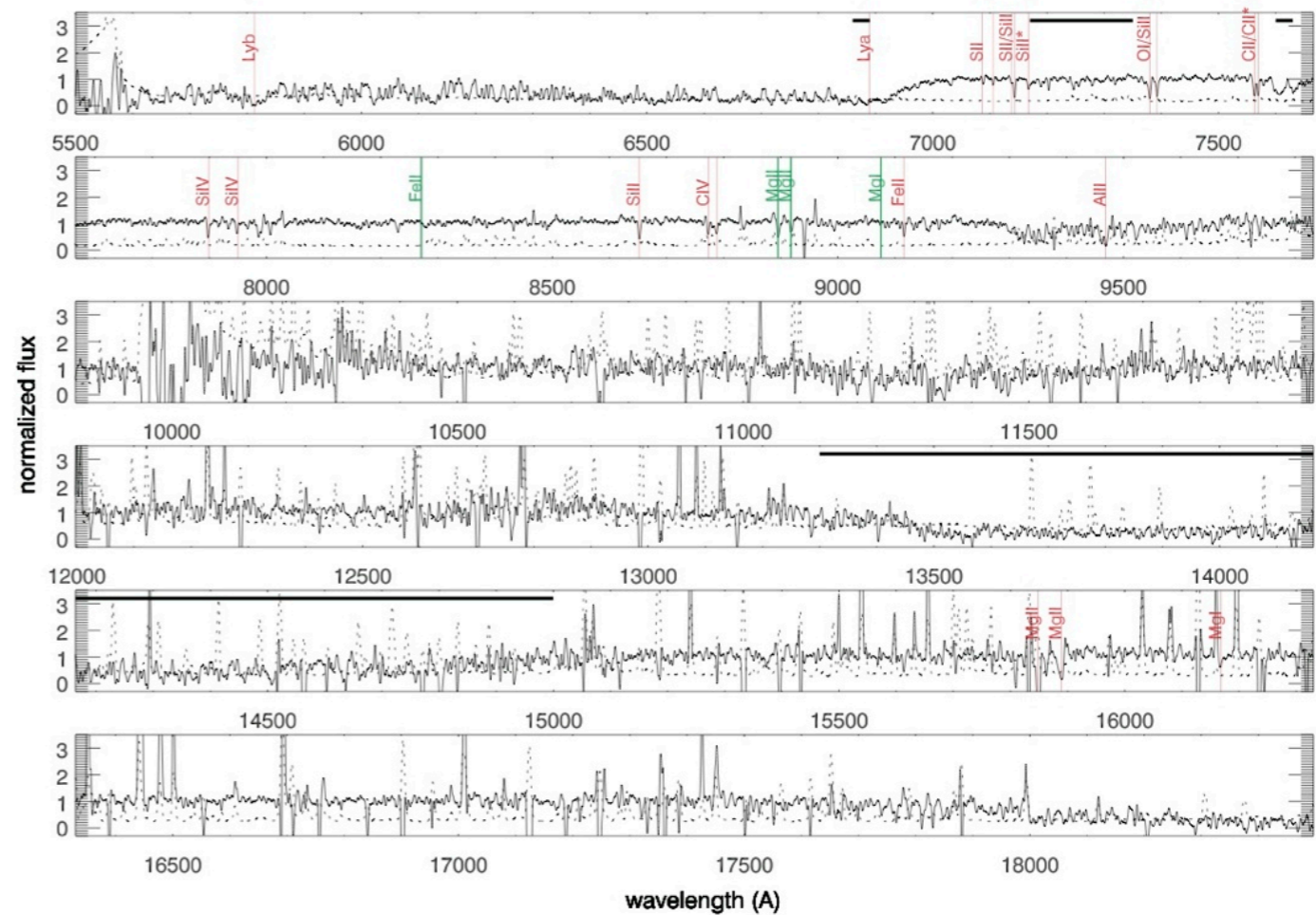
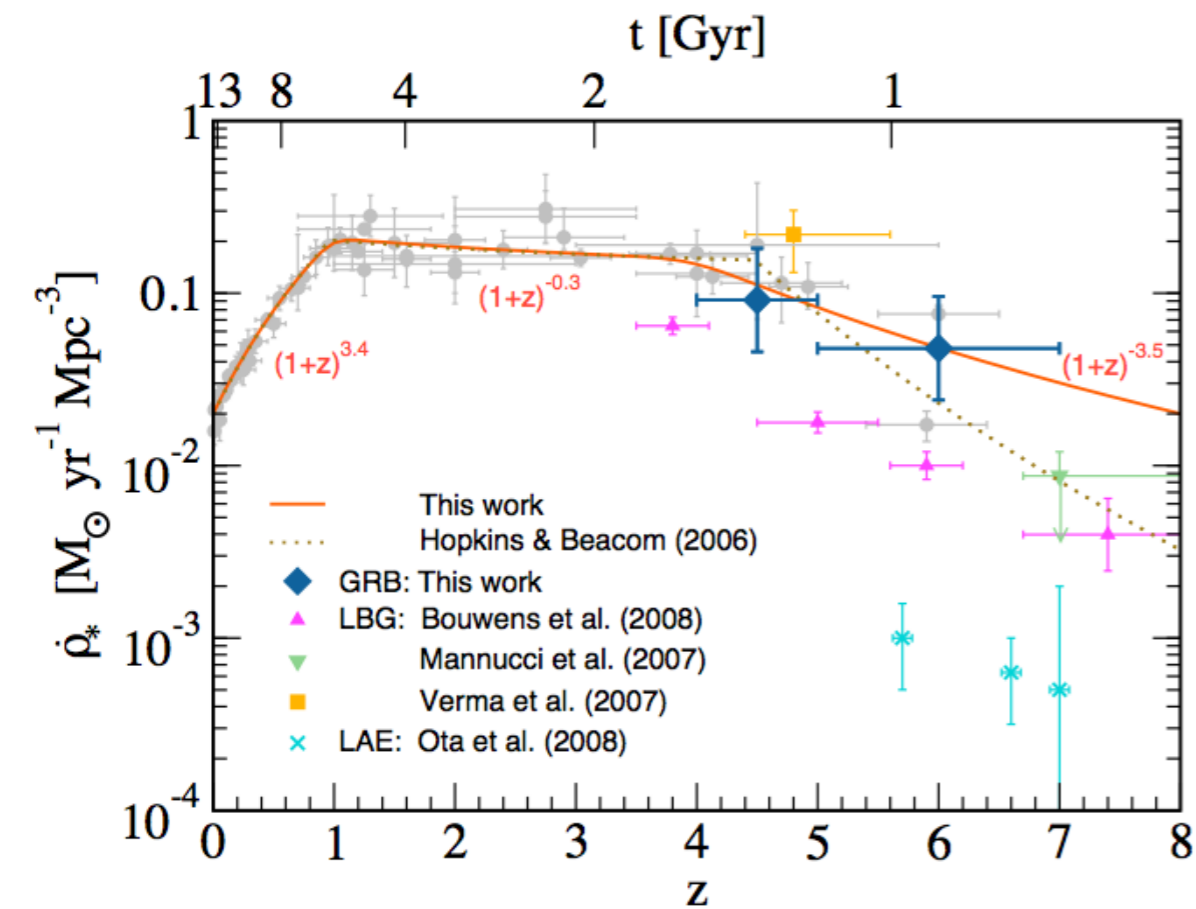
SF galaxies in radio/submm



Massive star hosts as tracers for star-formation at high z

SFH of the Universe

GRBs as probes of their environments and sightlines



What do we want to know at the end of the week?

- What are the current progenitor models and how can we test them observationally?
- How and how much does the composition influence a stars death?
- Can we use observations of the environment to know about the progenitor?
- How much does a massive star influence its environment?
- Which class of galaxy host massive stars? Does it change with time?
- Do massive stars trace the SFH of the Univers? Why / why not?