

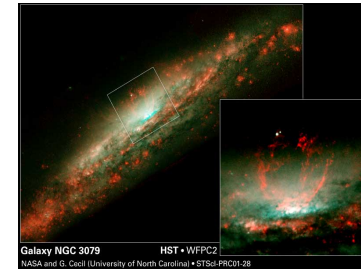
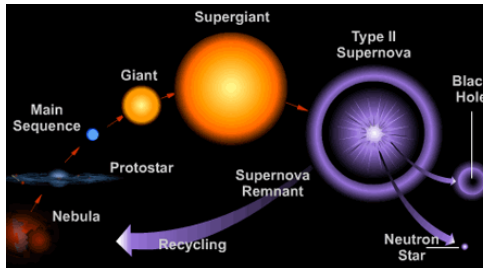
Cercle FEEDBACK

Format:

- Every aspect of feedback in galaxies, from **star formation, stellar and supernovae feedback, AGN related feedback, as well as connection with IGM.**
- Discuss papers/reviews/conferences dealing with feedback related issues.
- Present our own work related to the theme of feedback.
- Anyone aware of deadlines for proposal, conference, project (instrument, research program, numerical tool etc...) that could be of interest is encouraged to communicate.

When:

- Every other tuesday, from 11:30 to noon (30mn)
- Only 4 meetings since Feb. 9th



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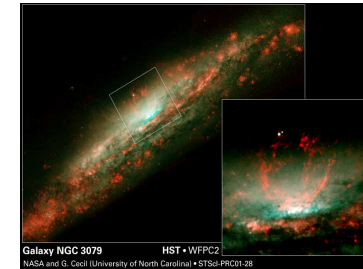
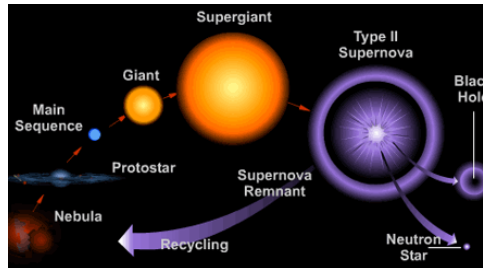
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Attendance:

- 17 persons signed up but average attendance is ~ 5!



Solutions?

- Be more directive
- Change day/time/schedule
- Merge with another circle

Binary Stars Can Provide the “Missing Photons” Needed for Reionization

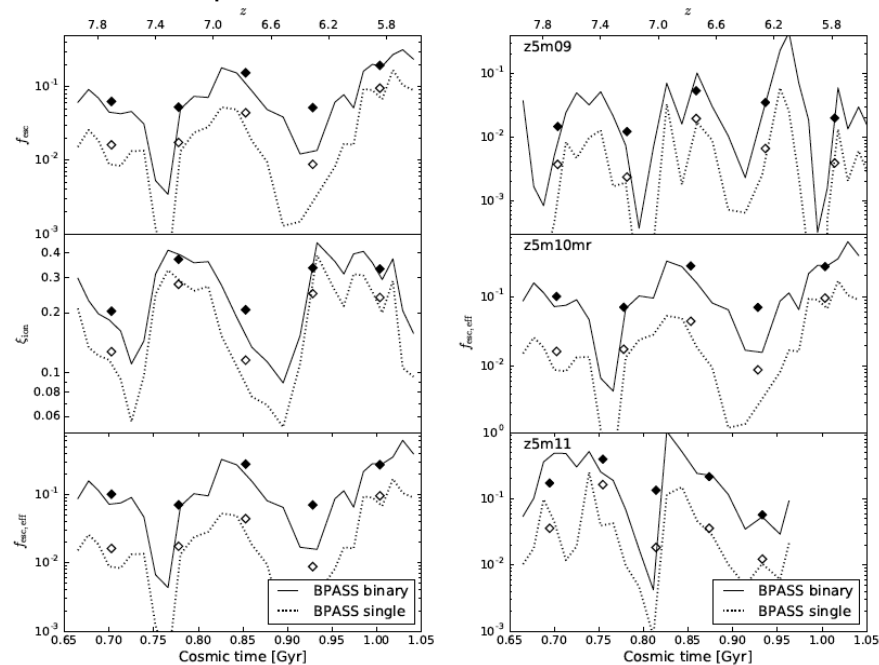
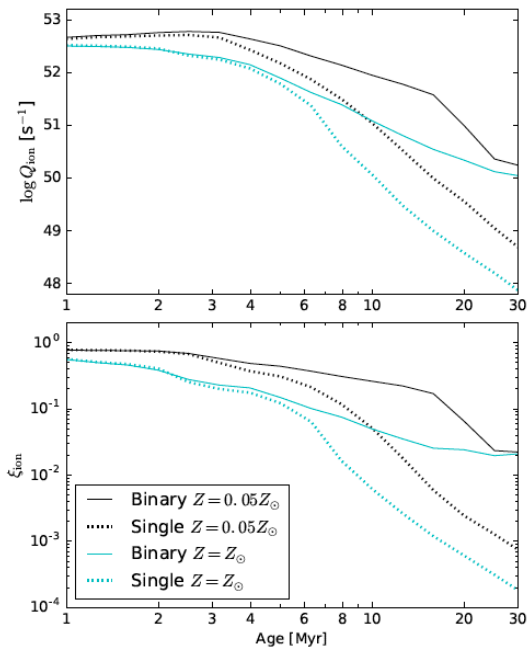
Ma X., Hopkins P., Kasen D., et al., MNRAS, 2016, 459, 3614

High-resolution cosmological simulations of galaxies from the Feedback in Realistic Environments (FIRE) project

Radiative transfer + Stellar evolution model that includes treatment of binaries (BPASS model)

Binary mass transfer and mergers → enhance population of massive stars at late times (> 3Myr) → late ionizing photon production

Photons produced after feedback from massive stars has carved escape channels in the ISM → efficient leak out



Time-averaged “effective” escape fraction increases by factors 4–10, sufficient to explain reionization.