Grad school in astronomy in the 90s…

Lisa Young, April 2023

Vivid memories #1:

ASTR 404 with Prof Icko Iben

no info here... read the caption!!

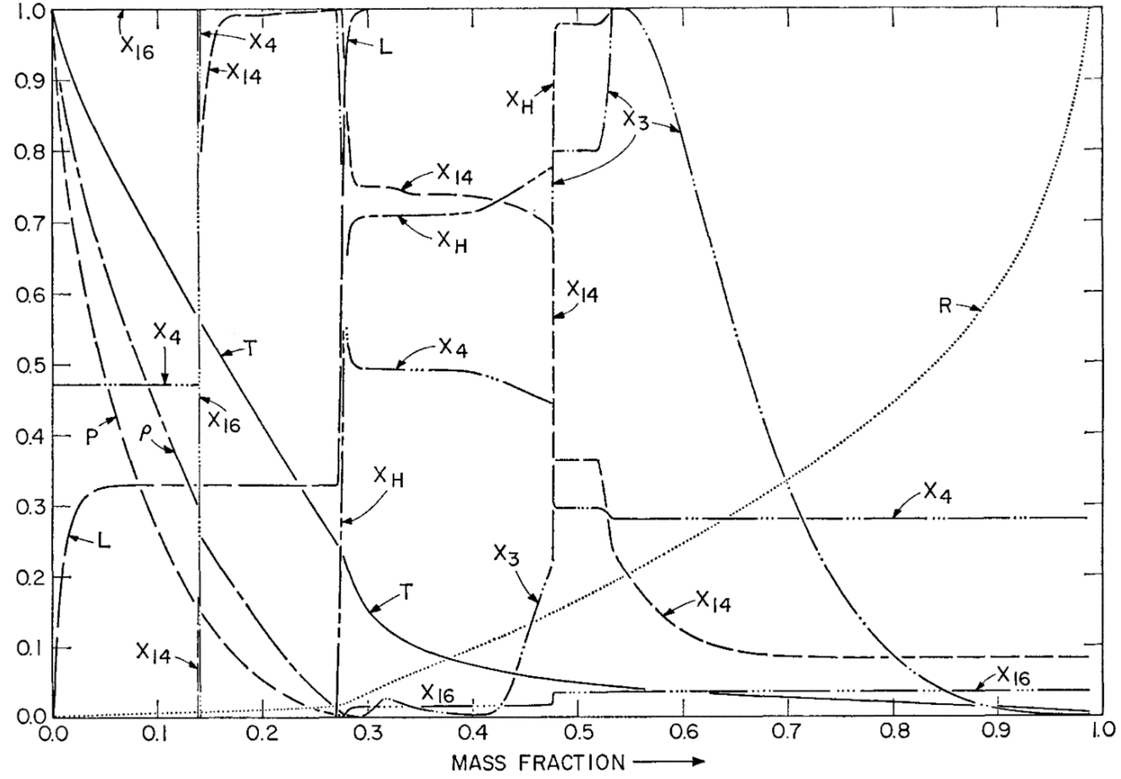


FIG. 7.—The variation with mass fraction of state and composition variables when $t = 1.13540 \times 10^7$ yr. Variables have the same significance and units as in Figs. 5 and 6. The abundance by mass of He^3 is given by X_3. Scale limits correspond to $0.0 \leq P \leq 139.542$, $0.0 \leq T \leq 179.734$, $0.0 \leq \rho \leq 1163.58$, $0.0 \leq L \leq 67890.7$, $0.0 \leq R \leq 20.4101$, $0.0 \leq X_H \leq 0.708$, $0.0 \leq X_3 \leq 1.740 \times 10^{-5}$, $0.0 \leq X_4 \leq 0.9761$, and $0.0 \leq X_{14} \leq 1.452 \times 10^{-2}$. The mass fraction in the static envelope is 0.0128903 and the stellar radius is $R_s = 38.0497\ R_\odot$.

Iben 1966

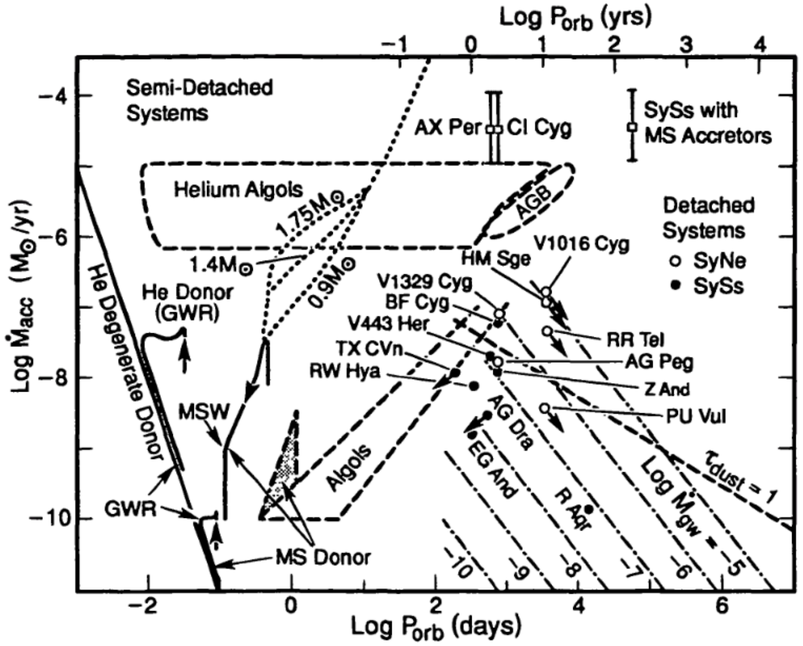
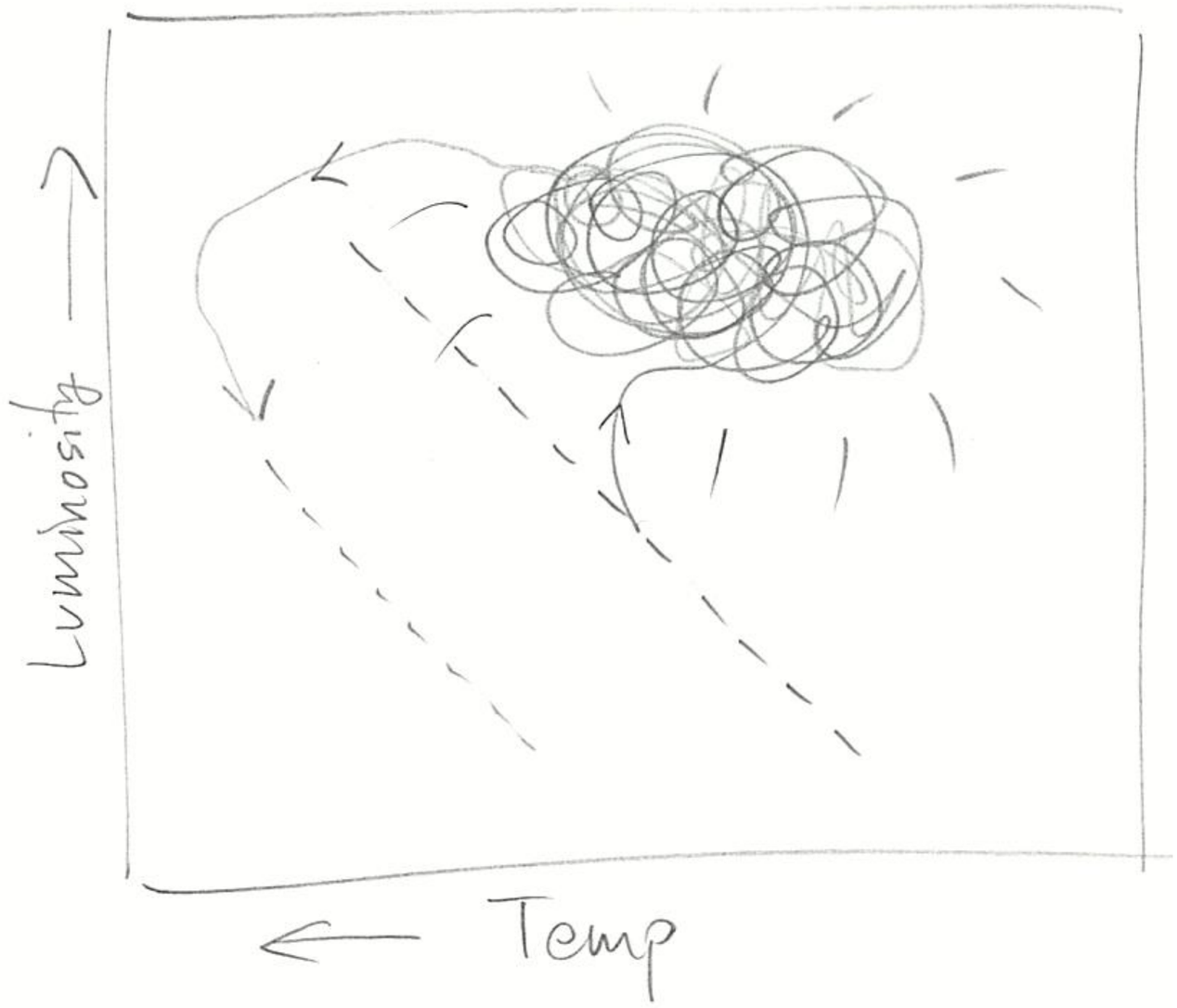


FIG. 4.—Symbiotic binaries in the plane $\dot{M}$ (accretion rate)-P_{orb} (orbital period). Dashed lines of negative slope are for a constant accretion rate as given by eq. (3). The line $\tau_{dust} = 1$ is defined by eq. (5) with the choices $v_6 = 2.5$, $M_{tot} = 3$, and $\kappa_{100} = 1$. Symbiotic novae are designated as open circles, and two accretion-powered stars are shown by open squares with error bars. Evolutionary tracks (*solid lines*) and regions occupied by semi-detached binaries of various kinds are shown according to existing theoretical models for low-mass binaries (for details, see Iben et al. 1995).

Iben & Tutukov 1996

My understanding of post-MS stellar evolution



“Before I came here I was confused about this subject.
Having listened to your lecture I am still confused. But on a higher level.”
Enrico Fermi

Vivid memories #2: ASTR 502 with Prof Mouschovias

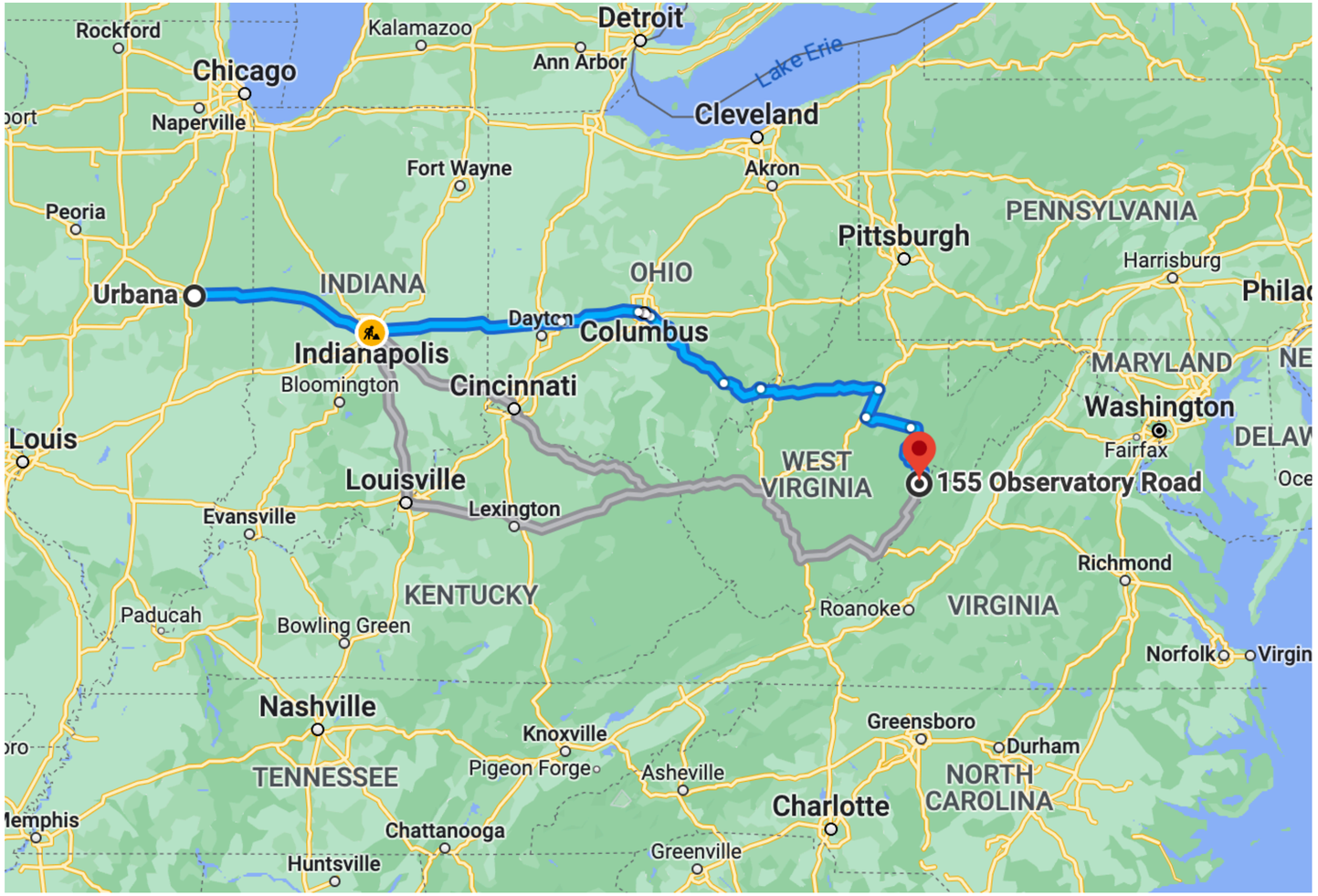
still use the notes & problems every year

great course, especially if you think you might end up teaching physics! (you never know)

Also ISM with Prof Crutcher - have reused those problems too.

ROAD TRIP!

Dr K. Y. (Fred) Lo and a bunch of grad students



The 140- foot (43-meter) telescope has the world's largest ball bearing inside, measuring 17 1/2 feet and 150 tons.

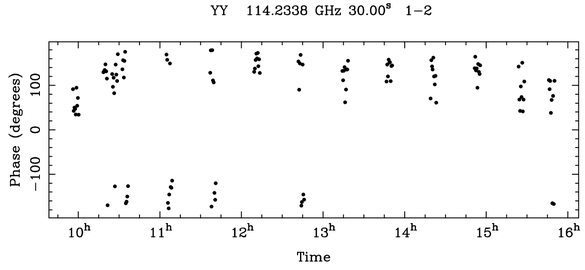
BIMA

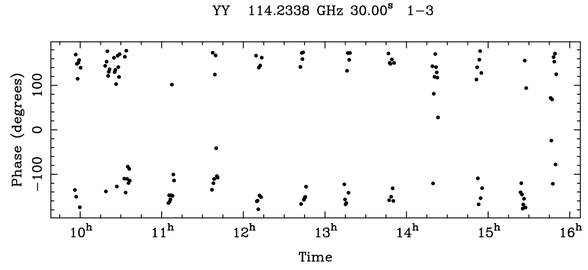
Can you believe they actually let us grad students help run it??

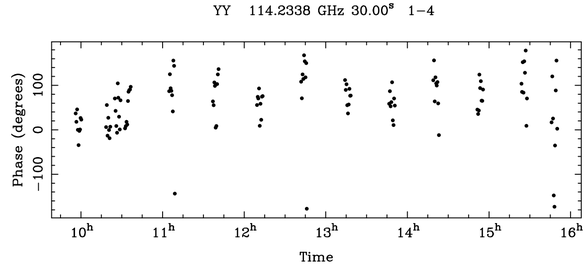
(loosely supervised)

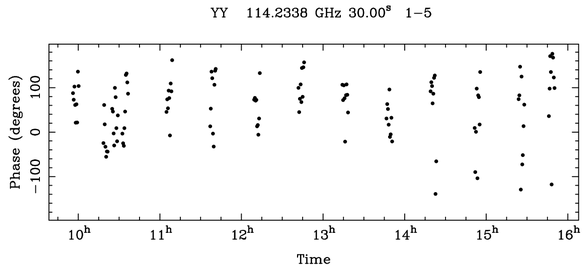
somebody please tell me how to credit this old photo

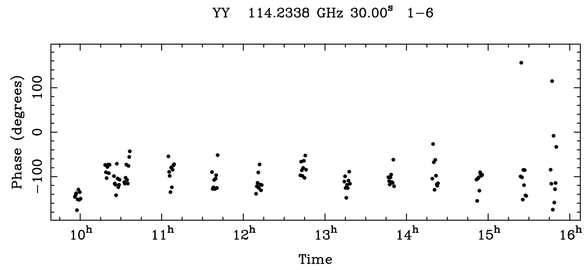
This is actually early CARMA data but it's the closest thing I could find

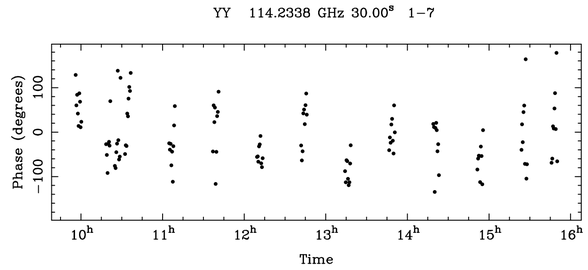


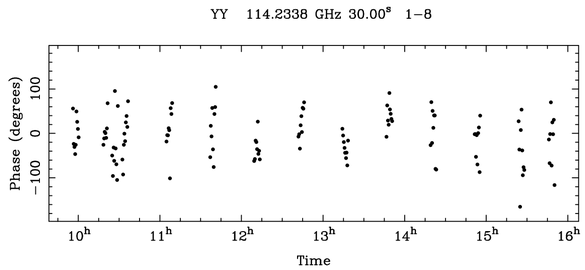


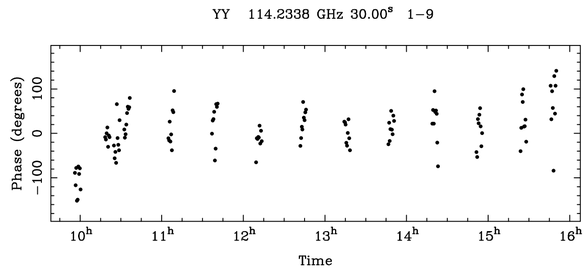


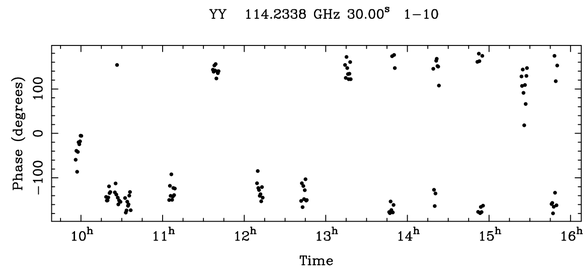


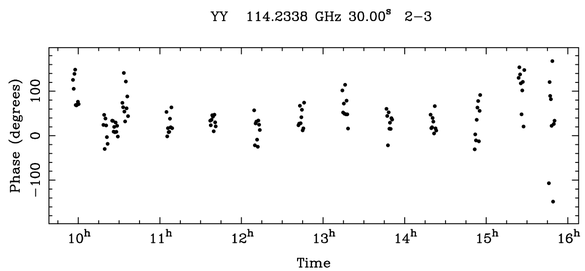


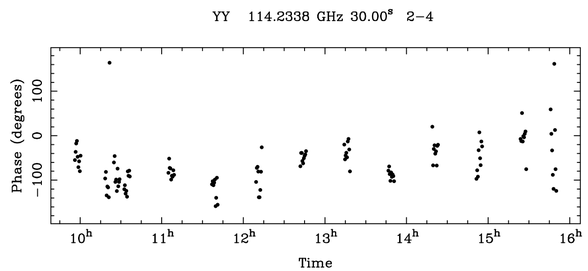


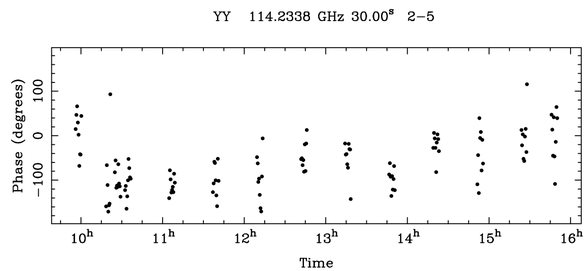


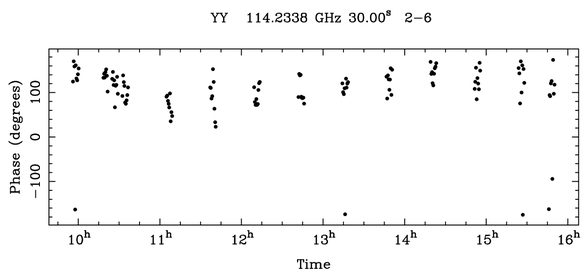


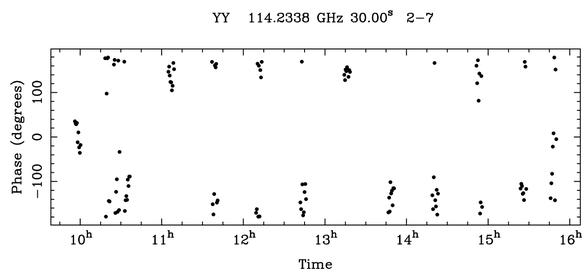


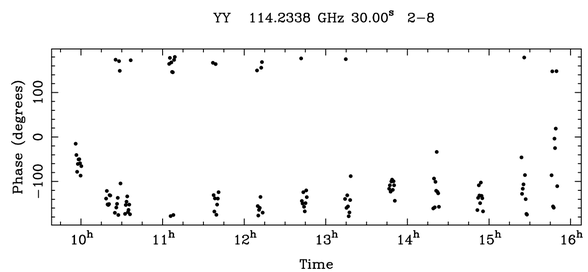












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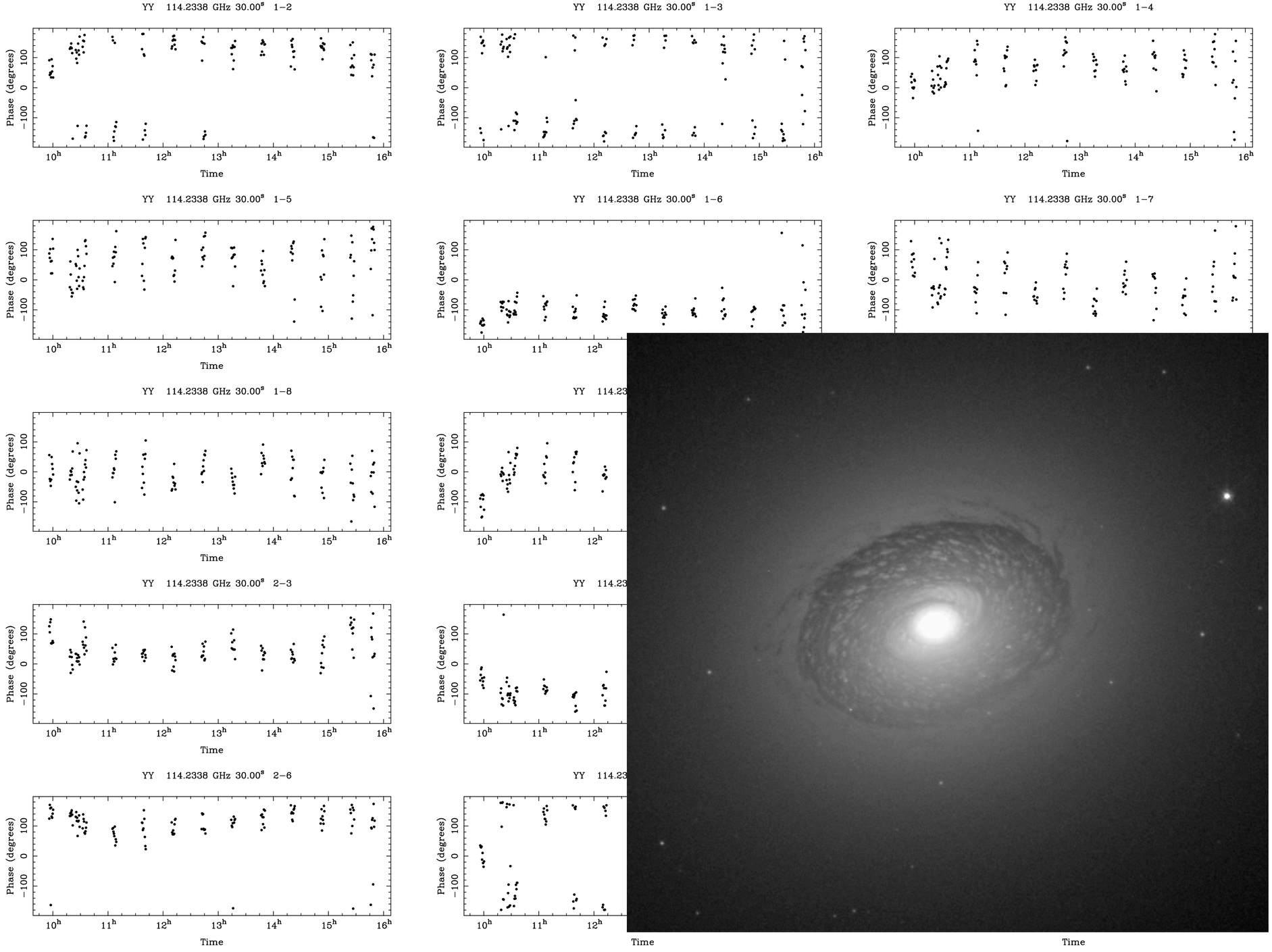
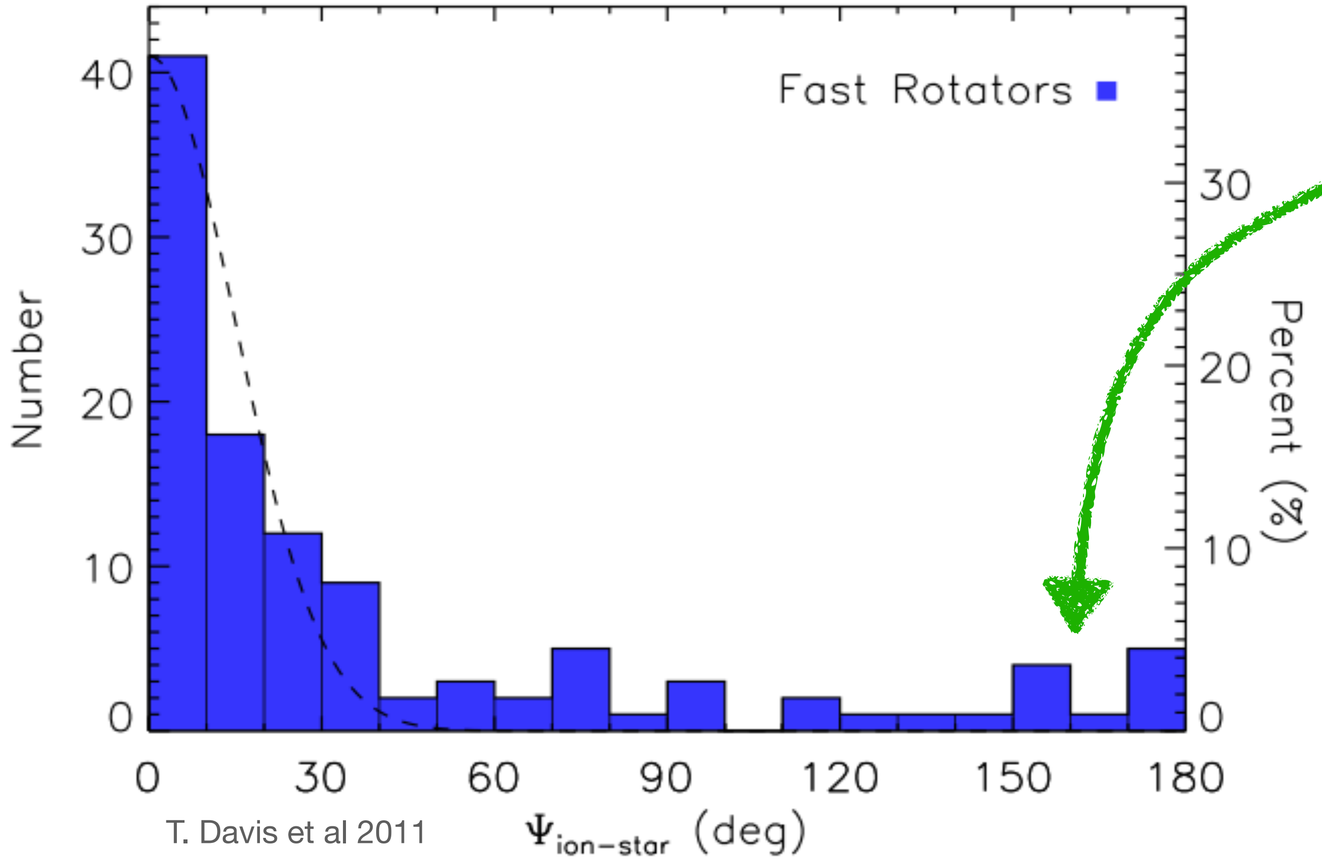


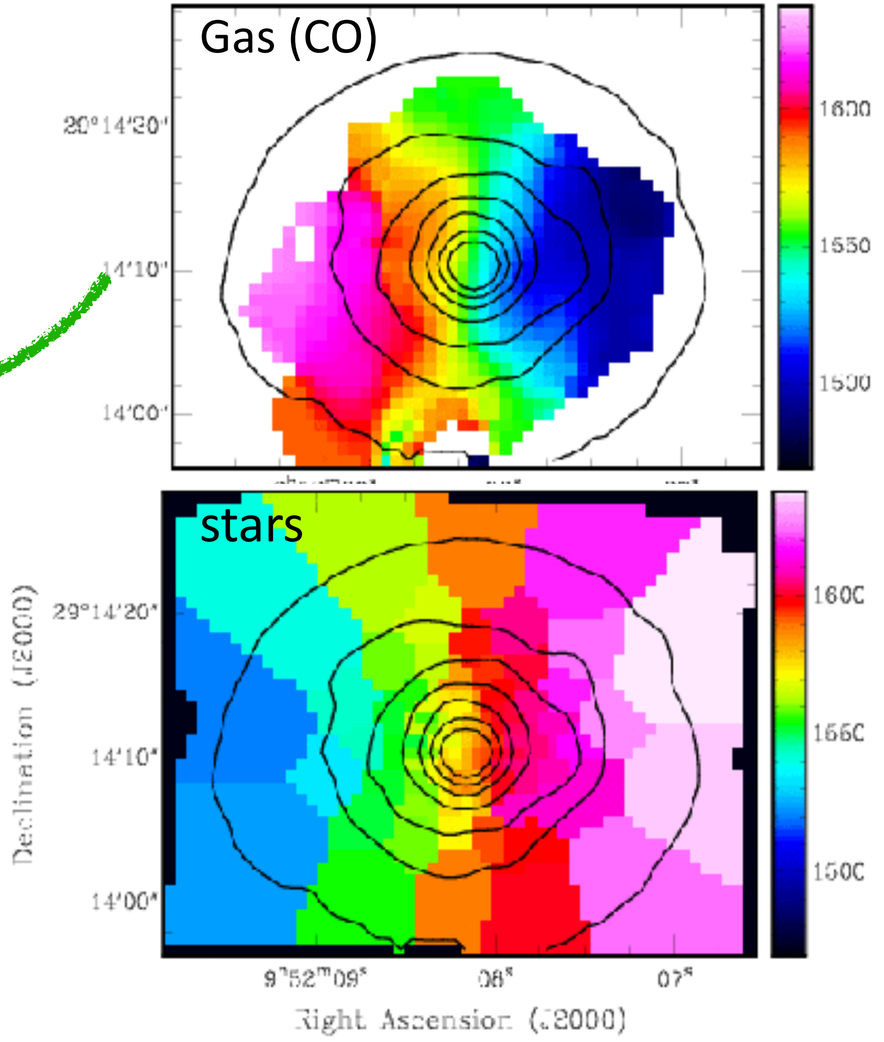
An important insight from BIMA/CARMA

Stellar-gas kinematic misalignments are surprisingly common.

> 50% of the H_2 and HI in early-type galaxies probably has external origin.



T. Davis et al 2011



Conclusions:

We had great opportunities for students to get involved with observing.

Buy You-Hua Chu a drink and get her to tell you more stories about those days.