

Stars for March 2015.

Dear CBAers,

New month, new targets. A few stars to quit on:

1. BZ Cam. We got a very dense 14-night run, with many contributions from Enrique, Mike Potter, Bob Koff, Tut Campbell, and others. Great data, and it confirms the spectacular 2014 results, which show a raft of periods: orbital, positive and negative superhumps, nodal precession. The whole family. We can't do any better - let's quit.
2. CP Pup. Some runs by Berto and Bob Rea. Not as good a campaign as in 2011 and 2014, and just *slightly* out of season now. I think we'll go with what we have; they establish the most interesting result - that the main photometric signal occurs at a period well separated from Porb. (Very unusual, but a few other stars show it.) End of campaign.
3. Swift 0614+17. The campaign began only recently, but the light curves demonstrate that it's an *obvious* DQ Her star, with large amplitude spin and orbital variations. Nothing more to learn (famous last words). Except the *precise* value of the periods. One or two runs in April should specify this.
4. HZ Pup. Great coverage this year, mostly from Gordon Myers at Siding Spring. Definitely confirmed as a DQ. Methinks we don't need anything more.
5. T Aurigae. About 20 days into this year's campaign, our first ever. Pretty good coverage by Enrique, Joe U, and Ken Menzies, among others. Enough to define the major features of the light curve, and enough to suggest no significant periodic features other than the shallow eclipse.

Time to move on.

Now for the dwarf novae. With classes, a broken hand (typing is hard!), and hip surgery, it has been really hard to keep up with all the new dwarf novae. I'll leave that topic in Enrique's hands... except to say this. I've steered away from the dwarf novae in recent years, because we had quite good data on nearly 100 of 'em, and each new one seemed only a small increment to our knowledge. But the new discoveries contain a surprising (actually, shocking) number of AM CVns or borderline AM CVns - stars with periods shorter than ~65 minutes. ASASSN-14mv is this year's best example. They're undeniably interesting, and they're all worth following. Up to a point... and Enrique is the best judge of when that point is reached.

The WZ Sge candidates - first-time erupters with very large outburst amplitudes - are another group of pretty high interest.

The DQs this time of year that need service are: V667 Pup, WX Pyx, DW Cnc, EX Hya (but Josch is covering it assiduously), and V382 Vel (tough target). The best DQ targets are two that we have NEVER observed: EI UMa and VZ Sex. Well-placed, and definitely deserving of our close attention (very frequent, not just occasional 3-hr time series like most DQ Her stars).

Finally, there's SW Sex. The SW Sex stars have been mighty good to us – and, IMHO, are

the key to understanding the long-term evolution of CVs (how they die). But in two short campaigns, SW Sex itself has failed to show any interesting periodic signals (other than its eclipse). It's a perfect time of year to do a multi-longitude study of this equatorial star (1012-03).

Happy observing!

Joe