HAO Colloquium Series

(Refreshments served)

Speaker: **Wes Lockwood, Lowell Observatory**

Time: **1:30 pm**

Date: **Wednesday, April 13, 2011**

Location: **CG-1, South Auditorium**

Title: **Solar variability after dark: evidence and some dead ends from stars and planets**

Abstract: Detecting solar variability in the reflected light from planets seemed like a good idea in 1947 when Harry Wexler of the U. S. Weather Bureau urged Lowell Observatory to give it a try. Even though it didn't work, NOAA climatologist J. Murray Mitchell Jr., urged us in 1971 to sign up for another hitch. As the result of good luck and a reluctance to quit, we ultimately detected sun-like variations in solar type stars of all ages. In combination with spectroscopic work at Mount Wilson Observatory and Lowell observatory we were just beginning to think we understood most of what was going on when the SORCE satellite recently added another layer of complexity to this enduring and fascinating problem. Along the way we learned a few things about planetary atmospheres as well. Some digging in the Lowell archives has revealed how climate science and federal funds kept pushing us along for six decades.

After wrapping up this portion of the talk (first given on my behalf by Richard Radick at the October 2010 Jack Eddy Cross Disciplinary Symposium), I will conclude with a more technical update on the Ca II activity of the sun and sun-like stars (begun as a joint HAO-Lowell project nearly 30 years ago) and concurrent precision photoelectric photometry at Lowell Observatory and Fairborn Observatory. Both projects continue, supported by NASA and NSF.