

Abstract Submitted
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Chasing a shadow: Student participation in lunar occultation observations KENNETH COLES, RONALD FREDA, Indiana University of Pennsylvania — Occultations, or blocking, of stars by the Moon have been observed and recorded by amateur astronomers since Dunham* discovered their usefulness a half century ago. Grazing occultations of the north or south polar regions of the Moon are of particular interest. These provide high-resolution (as fine as 50 m) constraints on lunar topography that is still poorly covered by radar measurements from Earth and robotic spacecraft. Moreover, plans for future lunar exploration include a possible outpost at the south pole. Grazing occultations can also constrain the positions and separation of double stars. Undergraduate students participate in our grazing occultation observations. Simple telescopes and audio recording, referenced to a base station located in space and time by GPS, can cover a chord across the limb of the Moon. We plan our next group effort at Indiana, PA for a 2008 April 7 (local time) graze of the lunar north pole by a magnitude 6 double star in Aries.
*Nugent, R., editor, 2007, The International Occultation Timing Association Observer's Manual: <http://www.poyntsource.com/IOTAmannual/index.htm>.

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