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"Discoveries in Planetary Sciences": Slide Sets Highlighting New Advances for Astronomy Educators

D. Brain (1), N. Schneider (2)

(1) University of California, Berkeley, USA, (2) University of Colorado, Boulder, USA (brain@ssl.berkeley.edu)

Abstract

Planetary science is a field that evolves rapidly, and it can take several years for new advances to work their way into college textbooks. Yet it is important for students to have exposure to these new advances for a number of reasons. In some cases, new work renders older textbook knowledge incorrect or incomplete. In some cases, new discoveries make it possible to emphasize older textbook knowledge in a new way. In all cases, new advances provide exciting and accessible examples of the scientific process in action.

To bridge the gap between textbooks and new advances in planetary sciences we have developed content on new discoveries for use by undergraduate instructors. Called 'Discoveries in Planetary Sciences', each new discovery is summarized in a 3-slide PowerPoint presentation. The first slide describes the discovery, the second slide discusses the underlying planetary science concepts, and the third presents the big picture implications of the discovery. A fourth slide includes links to associated press releases, images, and primary sources. This effort is generously sponsored by the Division for Planetary Sciences of the American Astronomical Society, and the slide sets are available at <http://dps.aas.org/education/dpsdisc/>. More than twenty slide sets have been released so far covering topics spanning all sub-disciplines of planetary science.

In this presentation we will discuss our motivation for this project, our implementation approach (from choosing topics to creating the slide sets, to getting them reviewed and released), and give examples of slide sets. We will present information in the form of web statistics on how many educators are using the slide sets, and which topics are most popular. We will also present feedback from educators who have used them in the classroom, and possible new directions for our activity. Finally, we will report on recent efforts to expand the audience for the slide sets by releasing Spanish language versions.