

The 21 Club
Social, Dinner and a Talk
Wednesday September 22, 2010

The first meeting of the Fall Semester will begin with a wine and beer social at 5:30 PM on the Santa Ana terrace (Room #3012) in the UNM Student Union Building. A plated dinner will commence at 6:30 PM in the Santa Ana Room followed by an after dinner talk given by [Zachary Sharp](#) (Abstract on Page 2).

The plated dinner will consist of Chicken Picatta (a boneless breast of chicken sauteed with capers and lemon butter) accompanied by rice, a fresh garden salad with ranch dressing, chef's vegetables, rolls and carrot cake for dessert. Beverages include wine, coffee, iced tea. A portobello mushroom stuffed with savory cheese and vegetables is the optional vegetarian entrée.



Go to <http://21club.unm.edu/sub.html> or mail your check (\$18 per reservation) to:

The 21 Club
Physics and Astronomy MSC07 42201
University of New Mexico
Albuquerque, NM 87131-0001

Please specify Chicken Picata or the vegetarian entrée. Note: to guarantee your reservation(s) your online payment or your check (payable to "The 21 Club") must be **received** by Monday, September 13, 2010.

Is the Moon Bone Dry?

Zachary Sharp

Regents' Professor of Earth and Planetary Science
The University of New Mexico

Last year a spacecraft performed a two-part dive into the lunar surface and found detectable levels of water ice. The experiment indicated that water exists diffusely across the moon as molecules clinging to the surface in low concentrations. But a debate rages on the presence of water dozens of kilometers below the surface, in the lunar mantle. The presence or absence of water in the mantle will help to define the moon's geologic history. Our study of rock samples collected during the Apollo missions has concluded the lunar interior is almost bone dry. This finding may also have implications for theories regarding the origins of water on Earth.