

COLORADO

CAFÉ SCIENTIFIQUE

TUESDAY 18 OCTOBER 2005

at the Wynkoop Brewing Company

<http://www.wynkoop.com/>

Corner of 18th and Wynkoop in LoDo, Denver

About a block from Light Rail. Thirteen minutes by foot from Auraria.

—A TELESCOPE THE SIZE OF RHODE ISLAND—

Something out there—no one knows what—is hurling incredibly energetic particles around the universe.

Colorado's new Auger Observatory will try to figure it out

John Harton

Physics, Colorado State University

The Auger project observes cosmic rays that hit the upper atmosphere from outer space. These particles create a shower of other particles, and some of those may reach the ground. In Auger we are interested in the most energetic particles, more than 10,000,000 times more energetic than any created in physics labs on Earth. Because the ultra-high-energy particles being studied are so rare, the Auger Observatory near Lamar is designed to detect particles falling anywhere over an area the size of Rhode Island. The observatory consists of an array of some 1,600 scintillation detectors spaced approximately 1.5 km apart. The detectors are tanks of purified water that are completely dark except for flashes of light when struck by cosmic ray particle showers. Auger will record enough events, and with enough precision, to draw the first detailed map of the sources of these ultra-high-energy events.

EVERYONE IS WELCOME. The discussion starts at 6:30 in the Mercantile Room (no food service there). Come before 6 PM to leave yourself time to get something to eat, or stay and eat afterwards. We end around 8 PM.

There's no charge. The Wynkoop is generously providing the facility; we buy our own food and drinks. It will be first come, first seated, and **seating is limited** so that everyone who wants to can be part of the discussion.

The Colorado Café Scientifique is organized by an informal group of President's Teaching Scholars and other faculty from CU and institutions up and down the Front Range, as well as science types from industry, government and elsewhere. We welcome your input, including ideas for speakers and topics. Bring them with you to the next Café, or e-mail them and any questions to John.Cohen@UCHSC.edu

Further essential information on our Web site at
<http://CafeSciColorado.org>

Coming Cafés—mark your calendars: 15 Nov: The Dark Side of GM Food; 13 Dec: Getting to Mars