

2008 APS April Meeting

Saturday-Tuesday, April 12-15, 2008; St. Louis, Missouri

Session KI Poster Session II (2:00-5:00pm)

2:00 PM-2:00 PM, Sunday, April 13, 2008

Hyatt Regency St. Louis Riverfront (formerly Adam's Mark Hotel), - Fourth Floor Lobby

Sponsoring Unit: APS

Abstract: K100023 : Evidence for an intense solar outburst in prehistory

Authors:

A. L. Peratt

(Los Alamos National Laboratory, Applied Physics Division)

W. F. Yao

(Albuquerque Public Schools System, Computations, State of New Mexico)

A past intense solar outburst and its effect on Earth was proposed by Gold [3] who based his hypotheses on astronomical and geophysical evidence. The discovery that objects from Neolithic or Early Bronze Ages carry patterns of high-current Z-pinches provides insight into the origin and meaning of these ancient symbols produced by mankind. A comparison of graphical and radiation data from high-current Z-pinches to petroglyphs and megaliths is made [1]. These correspond to mankind's visual observations of ancient aurora if the solar wind had increased at times between one and two orders of magnitude millennia ago [3]. Reference [2] focused on the source of light and its temporal change from a current-increasing Z-Pinch or dense plasma focus aurora. The orientation and field-of-view (FOV) as surveyed and contributed from 139 countries, the latest data coming from a 300 km survey along the Orinoco River Basin in Venezuela, is given. A reconstruction of the auroral form is shown based on existent geophysical evidence. Shown are relativistic electron flows inward at Earth's south polar axis and hypervelocity proton impacts around the north polar axis.

1. A. L. Peratt. Trans. Plasma Sci., 31. 1192. 2003.

2. A. L. Peratt. Trans. Plasma Sci.. 35. 778. 2007.

3. T. Gold, Pontificiae Academiae Scientiarvm Scripta Varia, 25, 159, 1962.