

THE UPGRADED SOLAR NEUTRON DETECTOR AT GORNERGRAT

R. Bütikofer (1), E.O. Flückiger (1), Y. Muraki (2), Y. Matsubara (2), T. Sako (2), H. Tsuchiya (2) and T. Sakai (3)

(1) Physikalisches Institut, University of Bern, Sidlerstrasse 5, CH-3012 Bern, Switzerland, (2) Solar-Terrestrial Environment Laboratory, Nagoya University, Nagoya 464-8601, Japan, (3) Physical Science Lab., College of Industrial Technology, Nihon University, 2-11-1 shin-ei, Narashino-shi, Chiba 275, Japan.

Since 1998 the solar neutron detector at Gornegrat, Switzerland, has been in operation as the European cornerstone of a worldwide network for the study of high-energy neutrons produced during energetic processes at the Sun. In autumn 1999 additional proportional counters and logic electronics were added to determine the direction of incoming neutrons. The paper discusses the principles of the additional components and the characteristics of the upgraded detector.