UNIVERSITY OF CALIFORNIA, SANTA CRUZ
SANTA CRUZ INSTITUTE FOR PARTICLE PHYSICS

Postdoctoral Scholar in Detector Development for Medical Application

The Santa Cruz Institute for Particle Physics (SCIPP) invites applications for a Postdoctoral Scholar in the field of detector development for medical application and for future experiment at high-luminosity colliders.

Funded by a four-year NIH grant, SCIPP is collaborating with Loma Linda University Medical Center (LLUMC) and CSU San Bernardino on the development of a proton CT (pCT) system to be used in the support of cancer treatment planning at the LLUMC proton therapy facility. We are developing a high resolution tracker based on silicon strip technology and fast data readout and an energy detector to measure the residual energy with high data through-put. This is in a symbiotic relationship with our R&D program for future colliders covering high-speed readout of silicon sensors with special attributes like reducing the dead area on the edges, which can introduce image artifacts when used in pCT.

The incumbent will be involved in all part of the overall design and layout of the pCT apparatus, participate in the development of ASICs and the readout systems with special emphasis on the data acquisition using FPGAs. In addition, he/she will lead the program to develop silicon sensors with "slim edges", to permit optimized tiling of the sensors. Knowledge of silicon sensor technology and testing and interest in getting involved in ASIC development is required. Participation in the analysis of pCT images, especially in year 3 and 4 will be encouraged. The position will be located in Santa Cruz, and occasional travel to support beam tests will be required.

SCIPP is a recognized leader in the development of silicon sensors and associated readout electronics. In addition, SCIPP groups maintain a diverse and active research program in particle physics, particle astrophysics and neurophysics. Close ties with Departments of Physics and Astronomy and with the SLAC and LBNL contribute to a stimulating academic and research environment.

RANK & SALARY: Postdoctoral Scholar. Salary will be commensurate with experience and qualifications; annual range from $40,776 to $51,720.

MINIMUM QUALIFICATIONS: Ph.D. or equivalent in experimental particle physics.

POSITION AVAILABLE: following the April 30th, 2011 closing date.

TO APPLY: Electronic applications preferred. Please send a curriculum vitae and a statement of research interests to the address below. Candidates should also arrange to have three letters of references sent to the address below. Applicants are invited to submit a statement addressing their contributions to diversity through their research and other professional activities.

Professor Hartmut Sadrozinski
c/o Vicki Johnson vicki@scipp.ucsc.edu
SCIPP-Natural Sciences II
University of California Santa Cruz
1156 High Street
Santa Cruz, CA 95064 USA

CLOSING DATE: This position is open until filled, with initial screening beginning after the closing date on April 30, 2011. To ensure full consideration, all materials must be received by that date. Late submissions may be considered.

The University of California, Santa Cruz is an Affirmative Action/Equal Employment Opportunity Employer, committed to excellence through diversity. We strive to establish a climate that welcomes, celebrates, and promotes respect for the contributions of all students and employees.

Inquiries regarding the University’s equal employment opportunity policies may be directed to: Equal Employment Opportunity/Affirmative Action office at the University of California, Santa Cruz, Ca 95064 (831 459-2686. Under Federal law, the University of California may employ only individuals who are legally able to work in the United States as established by providing documents as specified in the Immigration Reform and Control Act of 1986.

If you need assistance due to a disability please contact the Academic Human Resources office at 499 Clark Kerr Hall (831) 459-4300. This position description is available in alternate formats, which may be requested from Academic Human Resources at (831) 459-4300.

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