

GOVERNMENT
OF INDIA



सत्यमेव जयते

DEPARTMENT OF
ATOMIC ENERGY

EXCELLENCE IN SCIENCE, ENGINEERING AND TECHNOLOGY AWARDS SCHEME

Young Scientist Award

2006

Dr. BEDANGADAS MOHANTY

Experimental High Energy Physics
Physics Group
Variable Energy Cyclotron Centre, Kolkata

is conferred the Young Scientist Award for the year 2006 for his significant contribution in the area focusing on the search for QCD phase transitions: formation of Quark Gluon Plasma (QGP) and Chiral Symmetry Restoration in high energy heavy-ion collision experiments.

Dr. Mohanty has contributed to designing, building and data taking of the gas based Photon Multiplicity Detector for the STAR experiment at the Relativistic Heavy Ion Collider (RHIC). The analysis of first data from the detector carried out by him and a graduate student was published in Physical Review Letters. The photon multiplicity results provided new insight to particle production mechanism and helped resolve issues arising from conflicting results on charged hadron measurements in RHIC experiments.

His work on identified particle spectra in these experiments is a well cited paper in the field. The work has led to a test of QCD based calculations and provided new constraints on fragmentation function of gluons. His work has contributed towards demonstrating the formation of a hot and dense medium in heavy-ion collisions at RHIC, where partons loose energy in the medium. This phenomenon observed by all experiments at RHIC is considered a major discovery in the field. His recent work on phi meson production sheds new light on the source of strangeness enhancement in heavy-ion collisions, a matter of debate for a long time in the community.

His thesis work on search for Disoriented Chiral Condensates, a signature of chiral phase transition, is well recognized in the field. He has written a Physics Report, upon invitation from the editorial board, reviewing the existing work in the field.

The Chairman, Atomic Energy Commission has great pleasure in presenting the Young Scientist Award 2006 to Dr. Bedangadas Mohanty for his significant contribution to the Department.

(Dr. Anil Kakodkar)

Chairman, Atomic Energy Commission & Secretary to the Government of India