Data Preservation and Long Term Analysis in High Energy Physics

Gang CHEN Institute of High Energy Physics, Chinese Academy of Sciences Email: <u>Gang.Chen@ihep.ac.cn</u>

During the past few decades, physicists have constructed particle colliders to study the building blocks of matter, where technological advances, as well as experimental discoveries, have resulted in the construction of bigger and more powerful accelerators. Data from high-energy physics (HEP) experiments are collected with significant financial and human effort and are mostly unique. The experimental data from these experiments still has much to tell us from the on-going analyses that remain to be completed, but it may also contain things we do not yet know about. The paper will discuss the models and strategies of HEP data preservation based on the scientific potential of the data. Also the technologies for data preservation, management and analysis will be discussed.