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To: S. Atlas  
R. Balance  
F. Gilfeather  
D. Read  
B. Smith  
J. Towns

Dear Professor Gilfeather:

I am writing on behalf of the PHENIX collaboration, in my capacity as spokesperson, to express our appreciation for the computing resources and related assistance provided by the University of New Mexico's High Performance Computing, Education, and Research Center (HPCERC) during this past summer.

During the period from mid May to Mid July of this year, Dr. Tim Thomas - a research scientist with UNM's department of physics and astronomy, and a PHENIX collaborator - utilized a total of approximately 45,000 Service Units (34,000 CPU hours) on the HPCERC's LosLobos machine to create and deliver to remote collaborators roughly half a terabyte of crucial Monte Carlo simulation data. These simulation data were essential to the analysis of new results presented by PHENIX in 18 invited talks at the *Quark Matter 2002* conference in Nantes, France in the third week of July.

The PHENIX experiment is a large particle detector located at the Relativistic Heavy Ion Collider facility (RHIC), a high-energy nuclear/particle accelerator located at Brookhaven National Laboratory (BNL) on Long Island. PHENIX at RHIC makes fundamental studies of proton sub-structure and of the properties of highly excited nuclear matter. The experiment, valued in excess of \$100M, was constructed and is operated by an international collaboration consisting of over 400 scientists and engineers from 12 countries. Researchers from the New Mexico Center for Particle Physics, a unit of UNM's department of Physics and Astronomy, were responsible for constructing one of the hardware components of the experiment. They provide ongoing, related software and computing support, in addition to pursuing physics research activities within the collaboration.

September 4, 2002

Page 2

I am aware that the HPCERC is an NCSA-affiliated facility, funded in large part by the NSF, while the 10 year long construction of RHIC (\$600 million) and of PHENIX, both begun in 1990, was funded in large part by the DOE. However, NSF support of university-based relativistic heavy ion research over the past five years has been substantial. During that period, total awards to university groups with direct RHIC participation, through the NSF Division of Physics "Heavy Ion Nuclear Science" program, have exceeded \$12 million. In addition, during the same period, university-based research groups working at RHIC in the related field of high-energy hadronic spin physics received NSF funds totaling \$10.3 million. Recently, a new NSF-funded group at the University of Illinois Urbana-Champaign has joined PHENIX, and will be proposing major upgrades to the PHENIX apparatus to the NSF.

I hope you are as pleased as I am to see these most recent fruits of inter-agency cooperation. In this spirit, I would like to encourage continued support of Dr. Thomas's PHENIX computational activities at the HPCERC, which I am told include plans for a prototype advanced, grid-based Monte Carlo simulation production facility. I would like to give these plans my strongest support, while offering my profound gratitude for the wonderful results we have obtained this year from your facility.

Sincerely,

A handwritten signature in blue ink that reads "W.A. Zajc". The signature is written in a cursive style with a large, stylized 'Z'.

W.A. Zajc  
Professor of Physics  
PHENIX Spokesperson