FOREIGN TRAVEL TRIP REPORT

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Trip Report Date: 24 October 2000

DATES: Departure 6 October 2000 from Chicago, Illinois to Rio de Janeiro, Brazil.
Return 15 October 2000 from Rio de Janeiro, Brazill to Chicago, Illinois.

PURPOSE: To attend Heavy Quarks at Fixed Target 2000 (HQ2K) at Centro Brasiliero Pesquisas Fisicas Rio de Janeiro, Brazil, October 9-12

ABSTRACT: General Overview of the Conference, achievement, and discussions with physicists.

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Rio de Janeiro, Brazil
October 9 to October 13, 2000

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PURPOSE

The purpose of the trip to Rio de Janeiro was to attend the conference on Heavy Quarks at Fixed Target Experiments organized by the Centro Brasiliero Pesquisas Fisicas (CBPF). The conference had about 100 atendees, and consisted entirely of plenary talks. I was asked to give a 40 minute talk about future prospects for neutrino experiments, both in the realm of oscillation physics, and heavy quark physics. The talk concentrated mostly on the physics capabilities at a muon storage ring, and I stressed the novel experimental environment available there that is particularly promising for charm physics.

BACKGROUND

The Heavy Quarks at Fixed Target conference is held approximately every two years, and this one was the 5th in the series. The 1998 conference was held at Fermilab, and the 2002 conference is going to be held in Italy. Although the conference traditionally focuses on heavy quarks at fixed targets, there were a few talks on heavy quark physics at collider experiments, as well as one session on neutrino physics. Partially as a result of the success of the new format, and because of the new data sets arriving in the near future the series will change its name to "Heavy Quarks and Leptons" and stress this broader range of topics in the future.

ACHIEVEMENTS

There were about 100 participants attending this conference from laboratories and universities in both North and South America, Europe, and Japan. Because of the small size of the conference and the fact that there were only plenary sessions I was able to have many discussions about both the physics presented by the other speakers, and possibilities for extending the muon storage ring studies which I was reporting. I have a much better understanding of the current issues surrounding charm physics today, and where the field is likely to be when neutrino factory experiments might start taking data. I think I also helped make the case for including leptons in the next series of these conferences, since the long-term goals in neutrino oscillation physics are so similar to those in heavy quark physics. The purpose of both fields is to understand the nature of flavor.

SECURITY

No issues.