

January 14, 2013

Centro de Fisica Teorica de Particulas  
Instituto Superior Tecnico  
Av. Rovisco Pais, P-1049-001 Lisboa, Portugal

Dear Prof. Branco and Dr. Rebelo:

I am writing to apply for a postdoctoral position in your group. My primary research interests lie in high energy phenomenology, specifically with regards to improving the precision of QCD predictions at the LHC and other high energy facilities. This will allow us a higher sensitivity to new phenomena beyond the standard model. Two ideas for this are eliminating the renormalization and factorization scale ambiguities. A second class of problems would be to shed light on the breakdown of factorization theorems for LHC processes as well as calculating hadronization at the amplitude level. One proposed method for solving these types of nonperturbative problems would be the use of AdS/QCD which I have worked on and learned from Stan Brodsky and Guy de Téramond.

A copy of my CV as well a research statement explaining in finer detail my interests and proposed research is included in the application.

Thank you very much for your time and consideration. I look forward to hearing from you in the future.

Best Regards,

Joseph Day  
joseph.day@uni-graz.at  
(562)-708-3587