School of Leader of Theoretical F
Natural & Mathematical and Cosmology Group
Sciences Professor John Ellis
Department PhD FRS FInstP
of Physics Clerk Maxwell Professor

Leader of Theoretical Particle Physics Strand and Cosmology Group Londor Professor John Ellis Tel: 02 PhD FRS FInstP Fax: 02 Clerk Maxwell Professor of Physics Email: .

Strand
London WC2R 2LS
Tel: 020 7848 2470
Fax: 020 7848 2420
Email: John.Ellis@cern.ch
jonathan.r.ellis@kcl.ac.uk



University of London

Prof. Mark Lancaster, Dept. of Physics and Astronomy University College London Gower Street London WC1E 6BT

November 4<sup>th</sup>, 2011

Dear Mark,

It is a pleasure to write this letter of recommendation for **Dr Vasiliki (Vaso) Mitsou**, who is applying for a Lectureship in your Department.

It would not be appropriate for me to comment on Vaso Mitsou's competences in the technical areas of experimental physics, about which I am sure you will be hearing from others. Instead, I should like to describe to you my experience of collaborating with her on some phenomenological research papers.

The first problem was to analyze the delays in emissions from gamma-ray bursters in different energy ranges, distinguishing any possible redshift-dependent effect that could be a signature for quantum gravity. Vaso rescued my theoretical collaborators and me, first by extracting the data, then by fitting them with suitable simplifying pulse shapes, and finally by performing a correlation analysis to extract the possible signal.

During this work, she played a key role in devising the analysis strategy, displayed mastery of the necessary analysis tools, and did the lion's share of the analysis. It was also remarkable that a young experimental particle physicist mastered so rapidly the theoretical framework behind the project, which has by now approaching two hundred citations.

Encouraged by this successful experience, we recently collaborated again on a fit of cosmological data to various models for dark energy. Once again, Vaso Mitsou demonstrated her excellent technical qualities as an analyst, with a broad range of theoretical interests, as well as her tenacity and accuracy in obtaining first-class results. I appreciate particularly her ability to identify the key issues in analyzing combined data sets, and her eye for teasing out anomalies.

The experience of working with Vaso Mitsou is always very positive. She has great breadth of interest, she masters new subjects very quickly, is well focused and very decisive. I should add that, in addition to the phenomenological work we have been doing, she has also written a number of other analogous papers with other theorists. As such, she exhibits the potential to raise significantly the profile of phenomenological physics in London.

Vaso Mitsou is an excellent candidate for a Lectureship in your Department. I rate her in the top rank of the many young experimental and phenomenological postdocs with whom I have collaborated.

Yours sincerely,

John Ellis