

Tom Goffrey

Department of Physics, University of Warwick
Coventry, CV4 7AL
t.goffrey@warwick.ac.uk

February 28, 2013

Dear Professor Baraffe:

I am writing to you regarding the recently advertised postdoctoral position in computational stellar astrophysics (P44453/P44454). I am currently in the process of writing up my Ph.D in computational physics at the University of Warwick and would like to put myself forward for the aforementioned position.

During my doctoral studies I have gained vast experience in computational techniques and working on long term, large scale computational projects. My project involved the initial and further development of a two dimensional code. I have become practised in important methodologies, such as version control (experience with both git and svn), systematic testing of code, long term planning and time management and debugging. The code is parallelised through MPI, but I have also used openMP in the past.

My code went on to form the core solver of a radiation hydrodynamics code developed jointly between the University of Warwick, and Imperial College London. This has given me experience in collaborating with co-developers both locally, and at other institutions; development was integrated via a remote git repository, which has led me to agree upon and follow a prescribed work flow model. The development stage has recently drawn to a close, and I am currently preparing a number of publications relating both to computational techniques, and physical applications..

Outside of my Ph.D project I also initiated a collaboration with the University of Leicester. This work involves taking a pre-existing algorithm and adapting it for use on a GPU, through CUDA. This method of parallelisation is somewhat removed from my other work, and has given me insight into next generation architectures, and some of the issues with development away from conventional computing.

I hope I have managed to convey the large number of skills I believe make me a strong candidate for the position. Please let me know if I can provide you with any further information. I have included the details of three academic referees on the following page. Thank you for taking the time to consider my application.

Sincerely,

Tom Goffrey

Academic Referees

Professor Tony Arber

Department of Physics,
University of Warwick,
Coventry,
CV4 7AL.
t.d.arber@warwick.ac.uk
+44 (0) 24 76573872

Dr Dalia Chakrabarty

Department of Mathematics,
University of Leicester,
University Road,
Leicester,
LE1 7RH.
dc252@le.ac.uk
+44 0 116 2525352

Dr Christopher Brady

Department of Physics,
University of Warwick,
Coventry,
CV4 7AL.
c.s.brady@warwick.ac.uk
+44 0 24 76151003