

# Jonathan Andrew Pearson

## Personal details

**Date of birth** March 1<sup>st</sup>, 1988

**Current age** 20

**Nationality** British

**Address**

**Tel** **E-mail** jon@jpoffline.com **Web** http://www.jpoffline.com

## Education

2005 - 2009 *Undergraduate masters degree* (to be completed)

- **The University of Manchester** Physics with Theoretical Physics (predicted 1<sup>st</sup> class): MPhys (hons).
- **Selection of sub-disciplines studied:** Complex variables & integral transforms (90%), cosmology (69%), electrodynamics (92%), fluid mechanics (82%), lagrangian dynamics (88%), quantum mechanics of atoms & molecules (81%), solid state physics (92%), & various mathematical methods courses. Courses currently attending: gravitation, advanced statistical mechanics, advanced quantum mechanics.

2003 - 2004 *Diploma*

- **The Open University** Diploma in Mathematics (B): Dip.Maths(Open)
- **Selection of sub-disciplines studied:** Group theory, mathematical modelling, affine geometry, linear algebra, inverse geometry.

2001 - 2003 *A levels*

- **Richmond College** Maths (A), Physics (A), Chemistry (D), Further Maths (B)

Correct, as of 7<sup>th</sup> September, 2008.

## Skills

- Program in C++, Fortran77, mainly for scientific purposes.
- Able to competently use various operating systems: Windows XP, Mac OS X, Unix.
- Use mathematical, graphing & typesetting packages, including Mathematica, GnuPlot, SuperMongo & LaTeX (and confident with learning new packages!).
- Proven competency in self-learning mathematical, physical, computational methods.

## Academic achievements of note

- **Summer 2008, 8 week research project:** *cosmic texture*. Project involved using Fortran77 and JPL's HEALPix software to populate a sky map with objects having pre-determined temperature profiles, and then finding subsequent power spectrum; as well as literature research. Supervised by Dr.R.Battye, of the Theoretical Cosmology Group, Jodrell Bank Centre for Astrophysics.
- **Summer 2007, summer school:** Chosen as one of 30 world-wide delegates at *International Undergraduate Summer School*, hosted by the University of Sheffield, funded by PPARC. Lectures on particle physics & cosmology, with a 4 week project on *quintessence models of dark energy*. Numerical work used Maple.
- **Spring 2007, project for degree:** On the physics of neutron stars. Involved scientific usage of C++ to numerically solve differential equations.
- **Degree status:** Exam mark average consistently above 80%, placing myself in the top 8 students. Started university 1 year early.

- **Online degree notes:** Maintaining an online physics resource ([www.jpoffline.com](http://www.jpoffline.com)), hosting my original works & typeset lecture notes.
- **Pre-university education:** One will notice that all qualifications gained before university were at least 4 years “early”. Delegate at Stanford University’s Education Program for Gifted & Talented Youth, summer 2002 (youngest & one of 3 nationwide to receive a full scholarship from Warwick University, UK).

All reports & projects mentioned (and those unmentioned) may be found on the afore mentioned site [www.jpoffline.com](http://www.jpoffline.com).

### **Non-academic notes**

- Holder of full, clean UK drivers license.
- Volunteer work at Lee Abbey Youth Camps; a Christian charity. Pastoral care of children, creating multimedia entertainment resources. Also website manager for <http://camps.leeabbey.org.uk>.
- Attend Ivy Cottage church, Manchester. At the church, I have led small group discussions on a weekly basis; played bass guitar in the band; organised publicity events.
- 2004-2005: Holding the full time position of *booking & scheduling coordinator*, at the NHS Alexandra Hospital, Redditch; phasing in the government initiative for patient choice. Responsible for in- and out-patient waiting lists, informing patients, data handling, inter-department liason.