

Third Year Meeting

- General matters
- Graduation & Progression
- Special Circumstances
- Projects and the Graph Prize
- First semester projects (PHY341)

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Enjoy your Third Year!

- You've worked hard, mastered the foundational physics principles:
 - Quantum mechanics
 - Relativity
 - Mathematical techniques
- Now is the chance to use these to explore exciting new topics!
- A chance to experience physics close to the frontiers of research.

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New Students!

- This year we welcome 40 students from Nanjing Tech, on the Material Physics degree.
- Please be friendly and helpful as they settle in!

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People & Places

- Myself – Dr Chris Booth – Third Year esp. BSc D24
- Prof Mark Fox – MPhys E14
- Richard Webb – Lab technician E26
- Third & Fourth Year study area * (see below) E42
- Third & Fourth Project Year lab. ** E21
- Third Year web page
 - Includes third & fourth year guide
- Dr Mark Quinn – Careers advice F37
- * Open 9:00 to 5:45
- ** Open 9:00 to 5:00 Booking required

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IT & Study Areas in Hicks

- E42 Third & Fourth Year study area
- G floor IT facilities (CICS computer rooms)
- D13 Common room (Barry Jackson room)
- I19 study room (shared with Maths)
(door code 13579#)
- Printers in E42 and on G floor

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F10

- Hicks Undergraduate Reception
 - For Physics/Astronomy and Maths
 - For all undergraduate enquiries
 - All homeworks etc
 - Change of Status forms
 - Extenuating Circumstances & Medical notes, etc

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Contact

- Check e-mail regularly
- Notify Undergraduate Reception of changed postal address
- Check Y3 notice-board regularly (opposite E28)
- (Later) check exam timetables!

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Personal Tutors

- (Also known as Advisors)
- Usually same person through whole degree
- Will arrange appointment in next 2 weeks
- Drop-in sessions throughout the year
- Discuss exam results, progress, options, career opportunities, etc
- Turn up! These are for your benefit!

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Study habits!

- Lectures start on the hour (be on time!)
- Lectures are compulsory! (Bring U-card)
- 80 hrs/module (7 h/wk) \Rightarrow private study!
- Homeworks – own work, on time!
- No (August) resit exams!!
- No Third Year tutorials
 - See lecturer concerned (or Y2 Tutors ...)
- Think about careers!

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Regulations & failed credits

- To obtain a BSc Honours degree:
 - Minimum 200 credits from Y2 & Y3
 - (Can fail a maximum of 40 credits!)
 - Minimum 90 credits at F6 or above
 - (Basically PHY3nn, PHY4nn or equiv.)
 - There are no Third Year resit exams
 - Must pass (a) project
- To progress to Y4 of MPhys degree:
 - Minimum 100 credits in Y3
 - Minimum Y3 average of 59.5
 - (There is no Third Class MPhys.)

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Special note for MPhys students!!

- From '14-15, pass mark for M-level (Y4) modules raised to 50%.
- University rule – affects MPhys, MMath, MEng etc.
- (This is for compatibility with MSc.)
- Core Y3 (2nd semester) MPhys modules are tougher than those for BSc.

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Special Circumstances (also see department's MOLE page)

If you miss (or will miss) a few days because of minor illness/personal circumstances, then fill in a

Self-certification Form

This is especially important if you miss labs, workshops or project meetings.

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Longer Illness/Personal

For anything which lasts more than a week, occurs often or affects any assessment, fill in an Extenuating Circumstances Form

You will almost certainly need supporting documentation.

For illnesses, get the UHS to provide a 'sick note' (even if that says they told you not to come as it was viral).

If the assessment is for only one module and is worth <5% of the final mark, the staff member setting the assessment can approve the form. For multiple assessments or >5% components, David Mowbray (Senior Tutor) must approve it.

Without an extenuating circumstances form, all usual penalties will apply.

Special Circumstances

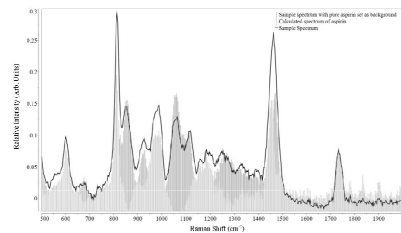
Forms are available from F10 or online:
www.sheffield.ac.uk/ssid/forms

You must tell us about any extenuating circumstances as soon as is practical. You must tell us what happened and what effect this had on your studies.

We almost certainly require some supporting evidence.

It is very difficult to account for extenuating circumstances after the fact.

Departmental Graph Prize



A graph showing a collected Raman spectra from a sample of blood plasma taken from the body of a suspected overdose victim. Shown in the blood plasma spectra are three characteristic carbon Raman spectra and a continuous fit that was determined to be a good fit. The concentration of carbon was also calculated by method of continuous variation and by use of an exponential fit for a protein. It was calculated to be 1.16% w/w which was believed to be fatal.

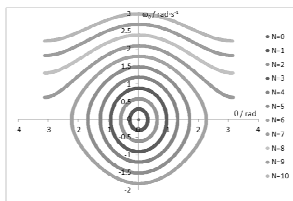
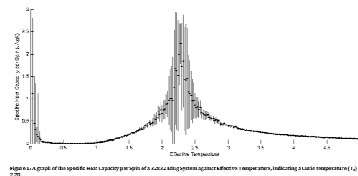


Figure 1: angular velocity ω against angle θ₀, with initial angle of the pendulum θ₀=0 and initial angular frequency ω₀=0.3π rad/s⁻¹ for one oscillation and varying N.



Investigation of Ferromagnetic to Paramagnetic Phase Transition Using Monte Carlo Simulation in 2D Ising Models

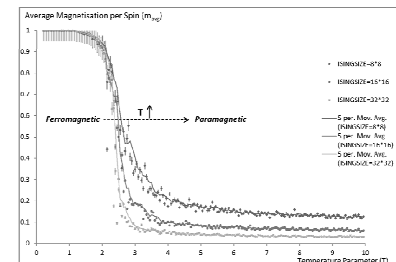


Figure 1: average magnetization per spin against temperature of different Ising systems

Departmental Graph Prize

- See: <http://tinyurl.com/TheGraphPrize>
- Open to 2nd to 4th years.
- 3 awards available to level 3 students: £100/£50/£25.
- Graphs should be based on project data.
- Can submit throughout the year – final deadline May 2019. *(Details will be announced later.)*
- Contact Dr Mark Quinn for more information.

Departmental Graph Prize

- What we're looking for:
 - Data is accurately and precisely represented by the graphic
 - Effective use of graphical methods to convey the significance of the result
 - Graphic is in an appropriate format
 - Caption conveys all necessary information in a concise, effective and appropriate fashion
 - Visual and aesthetic appeal
- How to submit:
 - Google form or e-mail figure+caption to m.quinn@shef.ac.uk (Dr Mark Quinn)

Projects (PHY341)

- Normally conducted in pairs.
- Project list
 - Read abstracts in E42 (or look on web).
 - Talk to possible supervisors.
- Choice form
 - Choose variety, projects & supervisors
 - Return to D24 by Thursday lunchtime.
 - Allocations announced by Monday.

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Projects

- Supervision meetings (weekly)
- Lab diary
- Independent reports
- Assessment details
- 2 bound copies to office by 12:00 Friday 14th December
- Plagiarism! – Electronic submission to “Turnitin”: 1 2
- Oral exams in January exam period

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