Poster Project • APMA 935 • End of Term Activities

This term APMA935 will conclude with a special project that is presented as a poster. Each student will choose a wave topic of personal interest, with the primary restriction that the project fit within the philosophy of this course. The poster will be formally presented at a public poster session (tentative date, Wednesday 12 April) where students and faculty are welcome for the viewing. During this time, APMA935 students will accompany their poster to provide additional explanation. Arrangements will be made for laptop computers to be set up in the presentation room for computational demos.

The aim of the poster is to communicate results from a worked PDE wave problem which illustrates the use of concepts from this course. The poster must involve both PDE analysis and a computational component which includes a live-action demo (some latitude for variances on this point may be discussed on a case-by-case basis). Presenting a short motivation for the problem is strongly encouraged. The project must be an independent activity from other coursework and thesis projects. The poster itself should be no more than 10 pages – variances must be requested in advance.

Possible topics can be extensions or variations of ideas presented in the lectures. The topic and research plan MUST be approved beforehand. Topics can be theory- and/or application-oriented. The *challenge level* of the problem should be comparable to a typical homework question. I will be happy work with you to formulate a problem that is suitable for your poster, but the choice of topic (and background research) must be yours – *meet with me prior to the 29 March deadline.*

Remaining deadlines for the term are:

- Friday 17 March – investigation #5 due.

- Wednesday 29 March – poster proposal due.

- Friday 31 March – investigation #6 due (1 problem).

- Wednesday 05 April – final lecture.

- Friday 07 April – investigation #7 due (1 problem).

- Monday 10 April – presentation (in my office) of basic results, and sketch of 10 page poster.

- Wednesday 12 April – poster session (tentative).

The research plan (29 March) should be a one-paragraph description of the problem and associated computation/graphics (post copy on webct). At least three references (books, papers, web, lecture notes) must be included. The basic results (10 April) need only be presented in rough draft form (with evidence of a working computation or graphical code), as well as an concept-level outline of the 10-page poster. The finished poster must be in large font (can be neatly hand-written) suitable for public display, with fully labelled figures.

The poster should present a broader discussion of the problem including history or motivation, advantages/disadvantages of the approaches used, and full interpretation of the results. Longer calculations, if absolutely essential, should be reserved to appendix pages and be set apart from the main story.