

## Agenda for third meeting of APTS Advisory Committee (AC3)

1400, 17 September 2009, University of Warwick  
Room MS.03, Zeeman Building (Maths and Statistics),  
central campus

(coffee available in the main atrium from about 1320)

Welcome

Apologies: Trevor Bailey, Lothar Breuer, William Deans, Peter Diggle, Carl Donovan, David Elston, Robin Henderson, Gilbert MacKenzie, Brendan Murphy, Julian Stander.

1. Minutes of second meeting (11 September 2008)
2. Matters arising
3. Report on APTS 2008–2009
4. Programme for APTS 2009–2010
5. Long-term future of APTS (discussion)
  - (1) *Paper setting out plan for continuation of APTS.*
  - (2) *Discussion document tabled at APTS Executive Committee, January 2009.*
6. Election of AC representative to Executive Committee  
*To replace Robin Henderson (Newcastle) Robin. Henderson@newcastle.ac.uk, who may choose to stand again.*
7. Any other business and general feedback

## Paper for 3. APTS year 2 (2008–9): Summary report to Advisory Committee

### Member Institutions

In 2008–9, APTS had 24 Member Institutions (21 in UK, 3 in Ireland). Of those, 23 have renewed Member Institution status for 2009–10; one new (Irish) Member Institution has been added in the Summer 2009 registration period.

### APTS weeks, academic year 2008–9

Week 1, December 2008, Warwick:

- *Statistical Computing* (S N Wood)
- *Statistical Inference* (D R Cox and D Firth)
- Evening sessions:
  - *RSS Reception*
  - *How Not to Give a Presentation*
  - *Writing a PhD thesis*

Week 2, April 2009, Southampton:

- *Statistical Modelling* (A C Davison and J J Forster)
- *Statistical Asymptotics* (G A Young)
- Evening sessions:
  - *RSS Reception*
  - *Question time with 5 recent Statistics PhDs in a range of employment (academia, government, pharma, engineering and finance)*

Week 3, June–July 2009, Bath:

- *Applied Stochastic Processes* (S B Connor and W S Kendall)
- *Computer Intensive Statistics* (B D Ripley)
- Evening sessions:
  - *RSS Reception*  
*including talk on history of RSS*

Week 4, August–September 2009, Glasgow:

- *Spatial and Longitudinal Data Analysis* (P J Diggle)
- *Nonparametric Smoothing* (A Delaigle)
- Evening sessions:
  - *RSS Reception*

– *Interview of the two lecturers, covering their careers, influences, and advice for young statisticians*

## Registrations

All four APTS weeks were over-subscribed at the close of registration in October 2008. The target (maximum) number for each APTS week in 2008–2009 was 60 students.

Applications were received for 107 students. For the four individual APTS weeks the respective numbers applying were 84, 78, 82 and 71. The numbers accepted were 69, 65, 69 and 62.

Students applying to take part in *all four* APTS weeks numbered 54, of whom 41 actually attended all 4 weeks (compared with 33 in 2007–8).

Of the 107 applications, 85 were for first-year students in statistics or probability; of those 85, 34 were EPSRC-funded. APTS Member Institutions made 82 of the 107 applications, and 98 came from within the UK.

Unsuccessful applications were held on an ordered reserve list, to be offered a place in the event of a cancellation.

## Student feedback

The following summarizes student responses to an anonymous questionnaire completed at the end of each training week. The numbers here relate to APTS weeks 1–3.

### A. Preparation for APTS

1. Did you find the APTS web site useful?

	Yes	No	Didn't use
Week 1	50	0	2
Week 2	49	0	1
Week 3	34	0	1
Week 4	34	0	2

2. Was it clear exactly what was expected of you in the weeks leading up to this APTS week? (e.g., making travel arrangements, looking at preliminary material, registering your meal choice, etc.)

	Yes	No
Week 1	49	2
Week 2	50	0
Week 3	34	0
Week 4	34	0

4. Did the preliminary material help you to understand the lectures this week?

	Yes	No	Didn't use
Statistical Computing	45	4	0
Statistical Inference	42	7	0
Statistical Modelling	30	1	0
Statistical Asymptotics	27	3	0
Computer Intensive	35	0	13
Stochastic Processes	34	1	13
Nonparametric Smoothing	22	2	12
Spatial and Longitudinal	21	4	11

*B. The APTS week: material covered*

1. How would you rate the level of the module lectures?

	Too easy	Just right	Too hard
Statistical Computing	1	43	8
Statistical Inference	6	37	9
Statistical Modelling	0	34	1
Statistical Asymptotics	0	24	11
Computer Intensive	5	39	4
Stochastic Processes	1	36	10
Nonparametric Smoothing	8	27	1
Spatial and Longitudinal	0	26	10

2. Did you find the computer sessions helpful?

	Yes	No	Didn't attend
Statistical Computing	43	1	8
Statistical Modelling	33	1	1
Computer Intensive	46	3	1
Nonparametric Smoothing	28	1	4

3. Did you enjoy the evening session(s)? (no evening session on Week 3)

	Yes	No	Didn't attend
Week 1	43	1	8
Week 2	19	2	14
Week 4	15	1	20

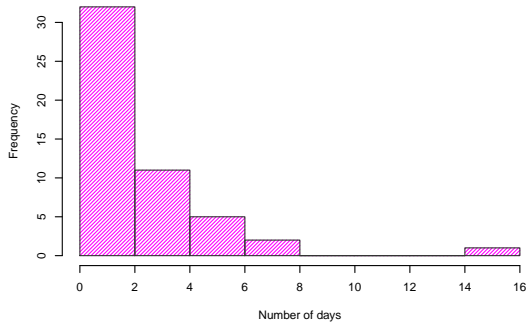
**Student costs**

The following table summarizes, in aggregate form (£), the invoices received by APTS sending institutions for the four APTS weeks in 2008–9:

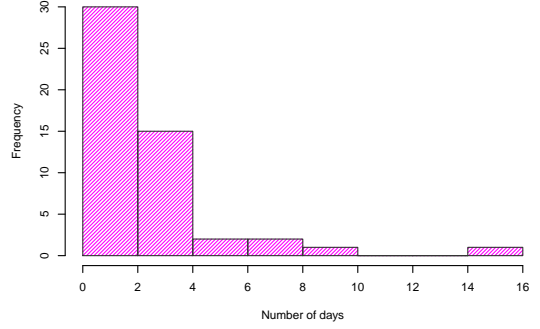
	Registration fees	Accommodation and food	EPSRC rebate (accom/food)	EPSRC travel allowance
Warwick	4256	16470	-6360	-1272
Southampton	3976	17520	-6940	-1954
Bath	4606	16120	-6540	-1888
Glasgow	3766	14760	-6080	-2313
TOTAL	16604	64870	-25920	-7427

3. Roughly, how many days did you spend on the preliminary material?

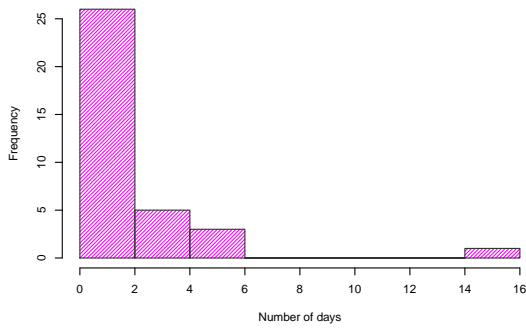
**Histogram of the number of days spent on the preliminary material of Statistical Computing**



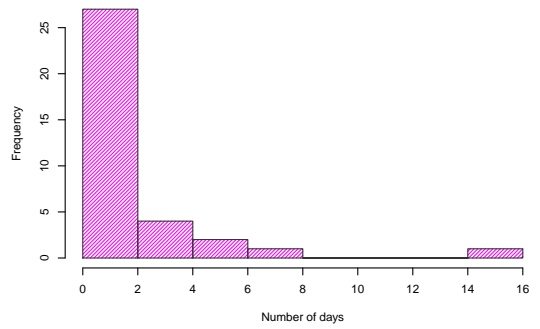
**Histogram of the number of days spent on the preliminary material of Statistical Inference**



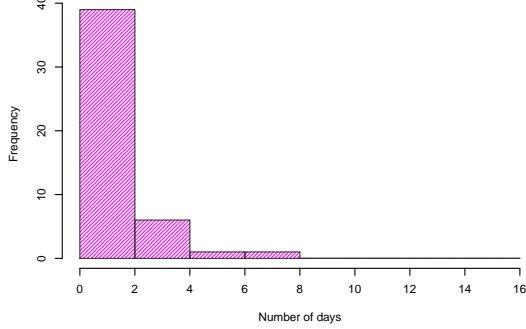
**Histogram of the number of days spent on the preliminary material of Statistical Asymptotics**



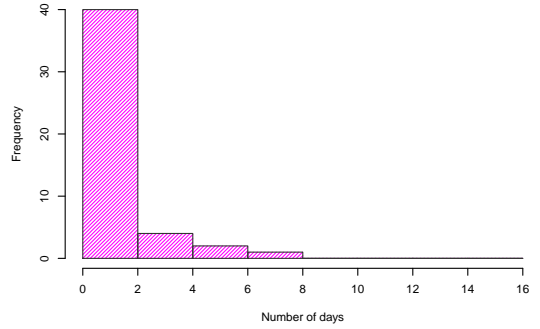
**Histogram of the number of days spent on the preliminary material of Statistical Modelling**



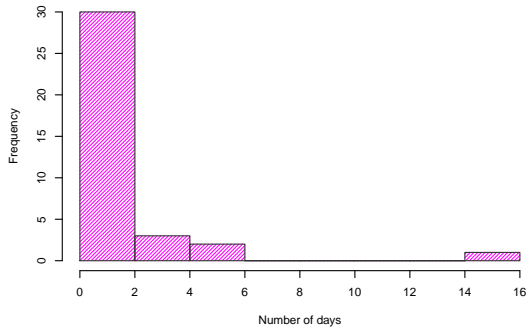
**Histogram of the number of days spent on the preliminary material of Applied Stochastic Processes**



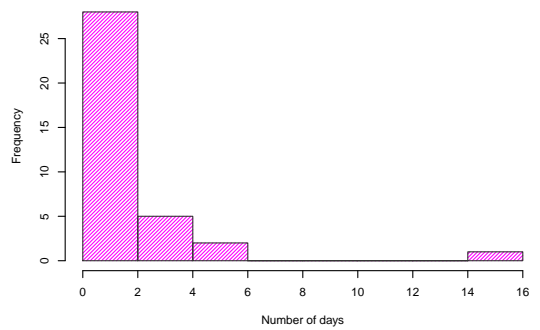
**Histogram of the number of days spent on the preliminary material of Computer Intensive Statistics**



**Histogram of the number of days spent on the preliminary material of Nonparametric Smoothing**



**Histogram of the number of days spent on the preliminary material of Spatial and Longitudinal Data Analysis**




### Student registration for APTS academic year 2009-10 will open on 21 September 2009, and will close on 23 October 2009.

Students can only be registered for APTS weeks by their "sending institution" (i.e., their home department): a list of these institutions appears below.

- If your department wishes to register as a sending institution, then please [click here](#);
- If your department wishes to commit to being a full Member Institution of APTS, then please [click here](#).  
(All Member Institutions are automatically "sending institutions".)

If your department is included in the list below, the APTS contact will be provided with a password enabling him/her to complete the [student registration form](#) for 2009-10 APTS weeks. (The student registration form also gives full information on cost.)

The principles and practicalities of student registration and payments include:

- date of application within the registration period is unimportant --- it is not used in determining the allocation of APTS places to students (see the [APTS Constitution](#)  for the list of priorities)
- sending institutions are invoiced by APTS for the registration fee, and for accommodation/meal costs in the case of non-EP SRC students, of their students who are allocated APTS places
- for EP SRC-funded students taking an APTS week away from home, an allowance is made by APTS to the sending institution to cover the cost of travel
- in the case of a student taking all four APTS weeks in the same academic year a 20% rebate of registration fees is made
- all financial transactions with individual APTS students, including travel expense claims, are handled by the sending institution

Please see the [FAQ](#) and the [Billing and Cancellation policy](#) for more specific information.

#### List of sending institutions

INSTITUTION	APTS CONTACT
University of <b>Bath</b> : Department of Mathematical Sciences, Statistics Group	Simon Wood
Queens University <b>Belfast</b> : Department of Sustainability	Frank Figge
University of <b>Birmingham</b> : School of Mathematics	Prakash N Patil
University of <b>Bristol</b> : Department of Mathematics, Statistics Group	Vanessa Didelez
University of <b>Bristol</b> : Department of Social Medicine	Chris Metcalfe
University of <b>Cambridge</b> : Statistical Laboratory	Richard Samworth
University of <b>Cambridge</b> : MRC Biostatistics Unit	Angela Frodsham
<b>Cardiff</b> University: School of Mathematics	Anatoly Zhigljavsky
Trinity College <b>Dublin</b> : Statistics Group	Simon Wilson
University College <b>Dublin</b> : Statistics Group	Brendan Murphy
University of <b>Durham</b> : Department of Mathematical Sciences	Jochen Einbeck
University of <b>Edinburgh</b> : School of Mathematics	Natalia Bochkina
University of <b>Exeter</b> : School of Engineering, Computer Science and Mathematics	Trevor Bailey
National University of Ireland, <b>Galway</b> : Department of Mathematics	John Newell
University of <b>Glasgow</b> : Department of Statistics	Adrian Bowman
Government Communications HQ: Applied Research	William Deans
<b>Heriot-Watt</b> University: Department of Actuarial Mathematics and Statistics	Alexander McNeil
University of <b>Iceland</b> : Department of Mathematics	Gunnar Stefansson
University of <b>Kent</b> : Institute of Mathematics, Statistics and Actuarial Science	Lothar Breuer
<b>Lancaster</b> University: Department of Mathematics and Statistics	Kanchan Mukherjee
<b>Lancaster</b> University: School of Health and Medicine	Peter Diggle
University of <b>Leeds</b> : Department of Statistics	Leonid Bogachev
University of <b>Limerick</b> : Centre for Biostatistics	Gilbert MacKenzie
<b>London</b> School of Hygiene and Tropical Medicine	James Carpenter
University College <b>London</b> : Department of Statistical Science	Sofia Ohede
University of <b>Manchester</b> : School of Mathematics	Eos Kyprianou
<b>Newcastle</b> University: Department of Mathematics & Statistics	Robin Henderson
University of <b>Nottingham</b> : School of Mathematical Sciences	Phil O'Neill
<b>Open</b> University: Department of Mathematics & Statistics	Paul Garthwaite
University of <b>Oxford</b> : Department of Physics	Nick Jones
University of <b>Oxford</b> : Department of Statistics	Neil Laws
University of <b>Plymouth</b> : School of Mathematics and Statistics	Julian Stander
University of <b>Reading</b> : Quantitative Biology and Applied Statistics	Dankmar Böhning
University of <b>St Andrews</b> : School of Mathematics and Statistics	Carl Donovan
University of <b>Salford</b> : Centre for OR and Applied Statistics	Phil Scarf
University of <b>Sheffield</b> : Department of Probability and Statistics	Paul Blackwell
University of <b>Sheffield</b> : School of Health and Related Research	Stephen Walters
University of <b>Southampton</b> : School of Mathematics	Jonathan Forster
University of <b>Southampton</b> : School of Social Sciences	Peter Smith
University of <b>Surrey</b> : Department of Mathematics	Janet Godolphin
University of <b>Warwick</b> : Department of Statistics	Mark Steel
University of <b>Warwick</b> : Systems Biology Doctoral Training Centre	Vicky Buchanan-Wollaston

## Billing and cancellation



This page gives details of the way in which the accounts of sending institutions will be handled, and of the APTS cancellation policy.

### Billing

APTS will maintain an account for each sending institution. Charges made against this account will be:

- registration fee for all students
- cost of the specified accommodation and food requirements

Rebates to the account will normally be made for EPSRC-funded students. For each APTS week in which such a student actually participates, the rebates will be:

- allowance for travel cost (at cheap rail rates)
- full cost of accommodation and food

In addition, for students who participate in all four APTS weeks in the same academic year, 20% of registration fees will be rebated.

Invoices will be issued to sending institutions **at the end of each APTS week**, for the amounts relating to participation in that APTS week. Registration rebates for students attending all four weeks are made on the invoice for APTS week 4.

### Cancellation policy

A statement of this policy will appear also on the form that is signed by sending institutions, to confirm their accepted registrations for APTS, immediately after the closing date for registering students.

1. Registration fees are payable for all students accepted for an APTS week, and are not normally refunded in the event of cancellation.
2. In the event of cancellation of a student's participation in an APTS week, the charges made for accommodation and food will be reduced by
  - **100%** if the cancellation is received **before noon of the Monday six weeks prior to the Monday of APTS week**
  - **50%** if the cancellation is received after that but **before noon of the Monday four weeks prior to the Monday of APTS week**.

(For an APTS week starting on Tuesday or Wednesday, "the Monday of APTS week" means the preceding Monday.) After four weeks prior to an APTS week, charges relating to that APTS week are not normally refunded.

Notice of any cancellation should be sent (by the APTS Academic Contact for the student's home department, NOT by the student concerned) by email to [admin@apts.ac.uk](mailto:admin@apts.ac.uk).

## Paper for 4. Programme for APTS 2009–2010

- APTS module weeks 2009-2010:
  - Cambridge  
Runs from Monday, 4th January to Friday, 8th January 2010.  
Statistical Computing (S N Wood)  
Statistical Inference (D Firth)
  - Nottingham  
Runs from Monday, 19th April to Friday, 23rd April 2010.  
Statistical Modelling (J J Forster)  
Statistical Asymptotics (G A Young)
  - Bristol  
Runs from Monday, 5th July to Friday, 9th July 2010.  
Applied Stochastic Processes (S B Connor and W S Kendall)  
Computer Intensive Statistics (B D Ripley)
  - Lancaster  
Runs from Monday, 6th September to Friday, 10th September 2010.  
Spatial and Longitudinal Data Analysis (P J Diggle)  
Nonparametric Smoothing (R J Samworth)
- Key dates:
  - Mon, 21st September, 2009  
Student registration for 2009-10 opens.  
Closes at noon on 23 Oct 2009  
Registration at [go.warwick.ac.uk/aps/register/student](http://go.warwick.ac.uk/aps/register/student) (password required for completion)  
Students can only be registered for APTS weeks by their “sending institution” (i.e., their home department): all Member Institutions are automatically “sending institutions”; others register at [go.warwick.ac.uk/aps/register/si](http://go.warwick.ac.uk/aps/register/si).
  - Billing and cancellation policy at [go.warwick.ac.uk/aps/register/billing-cancellation](http://go.warwick.ac.uk/aps/register/billing-cancellation).
- registration fee levels (set at EC January 2009): £100, 20% rebate in case of each student attending all four weeks.
- A preview of 2010–2011 dates:
  - Cambridge: 3-7 January 2011
  - Warwick: 21-25 March 2011
  - Southampton: 11-15 July 2011
  - Lancaster: 5-9 September 2011
- Oxford University Statistics Department will continue their course introducing  $R$ , which will again be available in web-lecture form to APTS students.



# **A proposal for the future of APTS beyond its initial 5-year funding period**

***David Firth and Wilfrid Kendall, 5 September 2009***

## **Introduction**

APTS has been funded by EPSRC for a five-year period ending September 2011. The first year (2007-2008) was devoted to planning and preparation; 2008-2009 was the first year of APTS training; we have now completed the second year; and there are two more years to come.

The EPSRC grant has supplied: funds for secretarial support and for a fraction of a post at PDRA level to manage the daily operation of APTS; various travel and IT expenses for the co-investigators on the grant; funds to support preparation (but *not* delivery) of the 8 APTS modules; and support for travel, accommodation and subsistence of module leaders and EPSRC-supported PhD students attending APTS weeks. Support for EPSRC-funded PhD students of course makes up the major part of the grant. Very approximately, around half of the 60-70 students attending each APTS week are thus funded by EPSRC. The non-EPSRC-funded students are wholly supported by the departments sending them to APTS; cost to departments of EPSRC-funded students is currently restricted to the registration fee for each week.

Some other support for APTS is supplied in kind by Warwick Statistics department, who make a nominal 5% of professorial time available for direction of APTS (currently shared between Profs Firth and Kendall).

The very warm and kind response to the APTS initiative has included very positive reactions to the possibility of continuing APTS beyond the initial five-year funding period; not only is the actual teaching appreciated, but the networking benefits are valued very highly. Each APTS year forms a national cohort of statistics researchers many of whom may be expected to continue professional relationships for 40 years or more.

In this paper we set out a possible plan for continuing APTS, based on feedback from the APTS advisory committee and discussion both face-to-face and by email with the APTS executive committee. This builds on the current structure of (i) Executive Committee, (ii) Advisory Committee largely made up of delegates from Member Institutions (who by registering as such commit to a basic level of usage of APTS for their Statistics PhD student populations), and (iii) Sending Institutions (who apply to send their students to APTS weeks).

## **Main elements of the plan**

Experience has shown that the crucial elements of APTS are exactly what might be expected: (1) strong central coordination of the APTS weeks, including centralized registration and quality control; (2) committed participation by module leaders; and (3) willingness of module week organizers to take on the task of running APTS weeks. Of these, (3) is crucial for continuation plans; we need to ensure that the task of organization of APTS weeks is not hindered by lack of resources. Practically speaking, one needs to establish the programme of 4 APTS weeks about 2.5 years ahead; thus we have already (in summer of 2009) secured agreement by organizers to host all four APTS weeks for 2010-2011. In order to do this we need to pay deposits considerably in advance; often as much as 12 months in advance. Thus a key component of any continuation planning is to arrange for underwriting of such deposits.

For this reason, we propose to establish a new category of "Subscribing Departments", effectively replacing the current APTS Executive Committee. Subscribing Departments pay an annual

subscription, which is used to provide a fund from which deposits may be paid to APTS week locations. Working on the basis of 4 APTS weeks per year, each costing in the order of £18000 (in 2009) for accommodation and subsistence for 60-70 students, and requiring 25% deposits, these subscriptions need to raise £18000 per annum; were we able to secure 9 subscribing departments we should then be able to function on the basis of an annual subscription of £2000 per subscribing department. A departmental subscription paid at the start of an academic year commencing 201x would be rebated from accommodation and subsistence costs for that department's students arising from academic year commencing 201(x+1). Membership of the APTS Executive Committee would be made up of delegates from subscribing departments, together with up to two elected representatives of the Advisory Committee (which would be constituted as at present).

We have been informed that it is possible that EPSRC may be prepared to accept a bid for continued funding of APTS at a reduced level; if so then we would be able to reduce the level of subscription required.

Of course one may consider reducing the APTS programme from 4 weeks per year (as at present) to 3 or even 2 weeks per year. This is particularly relevant if EPSRC does not continue to fund participation of EPSRC students, and if the cost of participation in all 4 weeks of a typical cycle is generally considered too high. Ultimately this decision would be a matter for the Executive Committee but Advisory Committee views would be very welcome and influential.

We envisage the remaining structure of APTS to be essentially the same as at present, with annual meetings of Advisory and Executive Committees, together with the present cycle of member institution, student registration, and APTS weeks. The priorities for admission in case of over-subscription would need to be altered: (a) to take account of the need to give higher priority to students from APTS Subscribing Institutions (following logically from the commitment to rebate their deposits), (b) in the event of *not* securing funding from EPSRC it would be necessary to remove the priority currently given to EPSRC students.

In particular we would expect to continue the present strategies of not changing module leadership much over time (present rate of change is of order of 1 or 2 changes per year), and of recompensing the departments of module leaders at the rate of £2000 per week, pro-rata for shared leadership. The actual value of module leader contributions is far in excess of this! As mentioned at the previous Advisory Committee, together with annual contributions of order of £20000 for secretarial and programme manager support from the institution tasked with running APTS, and £10000 for contingencies supporting APTS weeks (for example, room hire costs, evening sessions), the resulting annual figure of £46000 suggests registration fees of the order of £230 per student per week based on an assumption of somewhat reduced attendance.

Finally we wish to emphasize that we do *not* presume on the inevitability of Warwick continuing to be tasked with running APTS. We welcome expressions of interest from other institutions; these expressions will be laid before the APTS Executive Committee for their decision in January 2010.

## **Next steps**

Should the Advisory Committee approve this general plan, the APTS Directors will undertake to prepare a detailed and explicitly costed plan, together with a revised constitution, for approval by the APTS Executive Committee at its next meeting in January 2010. (We have appended a December 2008 document prepared for APTS EC which was used to initiate an email discussion by the EC which led to the plan presented above.) We will separately invite comments by EPSRC, in case they are in a position to clarify early comments on the possibility of APTS bidding for continuation of EPSRC support.

# Long-term future of APTS (notes for discussion)

Wilfrid Kendall

16th December 2008

EPSRC funding of APTS ceases at end of academic year 2010-2011, so we need to solidify thinking about follow-up. These notes are based on a discussion with the Advisory Committee 11 September 2008

Recall that currently EPSRC funding subsidizes accommodation, board, travel for EPSRC students only, and contributes to lecturer preparation time (but *not* delivery) and part of administration costs. Warwick contributes a not insubstantial part of administration costs (5% of professorial time for directorial oversight: we have found this effort to be non-trivial, and very favourable comments from AC about “ownership of APTS activity” suggest this is an important component of APTS success).

We have no view either way on whether Warwick should continue to act as APTS “centre” after the current period of EPSRC funding. However we *do* think that any continuation should take care to cover the full costs of running APTS.

Here are four options for continuation beyond 2010-2011:

1. continue APTS on the basis of being fully-funded by participating departments, charging full costs to all students for four residential weeks;
2. continue APTS on the basis of being fully-funded by participating departments, charging full costs to all students for a reduced programme of two residential weeks supplemented by web-based activity;
3. seek partial support from appropriate bodies to continue APTS on the current basis of four residential weeks, with partial support being made available to students based on appropriate criteria;
4. seek partial support from appropriate bodies to continue APTS on the reduced basis of two residential weeks, with partial support being made available to students based on appropriate criteria supplemented by web-based activity.

Based on very strong feedback from the Advisory Committee, we are omitting for now two further options, namely (5) moving APTS to an entirely web-based delivery (Advisory Committee were very strongly of the view that a substantial residential component provided a most important networking component of great long-term strategic value – see agenda 5 of AC 2008), and (6) ceasing operation of APTS altogether (included here for completeness; but the very strong positive feedback from AC 2008 suggests this is not a likely outcome).

We need to move fairly soon to a view on which options to pursue at a practical level.