Paper for 3. APTS year 11 (2017–18): Summary report to Executive Committee

Preliminary: some summary counts for all years 2007–2017

Numbers of students who attended at least one APTS week (of which, EPSRC-funded in brackets):

2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
88 (38)	88 (37)	100 (45)	90 (37)	128 (46)	129 (40)	147 (40)	149 (42)	130 (47)

2016-17	2017-18
155 (NA)	174 (NA)

Number of APTS lecturers to date: 28 (This will increase to 32 in 2018–19)

Number of APTS-week host institutions to date: 11 (remaining at 11 this year)

Member Institutions

In 2017–18 there were 25 MIs, all located in the UK and Ireland.

APTS weeks, academic year 2017–18

Week 1, December 2017, Cambridge:

- *Statistical Computing* (Finn Lindgren)
- *Statistical Inference* (Jonty Rougier)
- Evening sessions: RSS Reception, Pub quiz, Academy Dinner

Week 2, April 2018, Nottingham:

- *Applied Stochastic Processes* (Stephen Connor and Amanda Turner)
- *Statistical Modelling* (Antony Overstall)
- Evening sessions: RSS Reception, Academy Dinner

Week 3, July 2018, Southampton

- *Computer Intensive Statistics* (Paul Jenkins and Adam Johansen)
- *High-dimensional Statistics* (Rajen Shah)
- Evening sessions: RSS Reception, Movie night, Academy Dinner

Week 4, August 2018, Glasgow:

- *Design of Experiments & Studies* (Dave Woods)
- *Flexible Regression* (Claire Miller and Tereza Neocleous)
- Evening sessions: RSS Reception, Quiz, Ceilidh

Registrations

A total of 178 unique students were registered to attend one or more APTS week in 2017–18. Numbers of registrations for each of the four weeks were 137, 125, 125, and 107, respectively. The corresponding attendance figures were 134, 120, 110, and 89, respectively. At the end of the registration period, we were able to accommodate all students.

Of those 178 students:

- 80 were registered to attend all 4 weeks and 60 students actually did so.
- 151 were first year students in statistics or probability.
- APTS Member Institutions supplied 132 of the 178 applications.

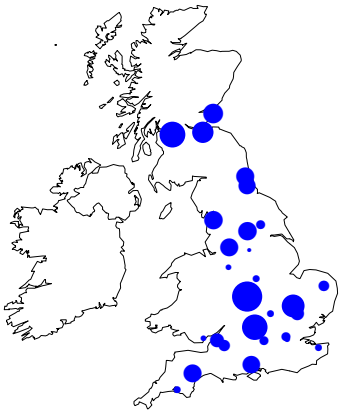


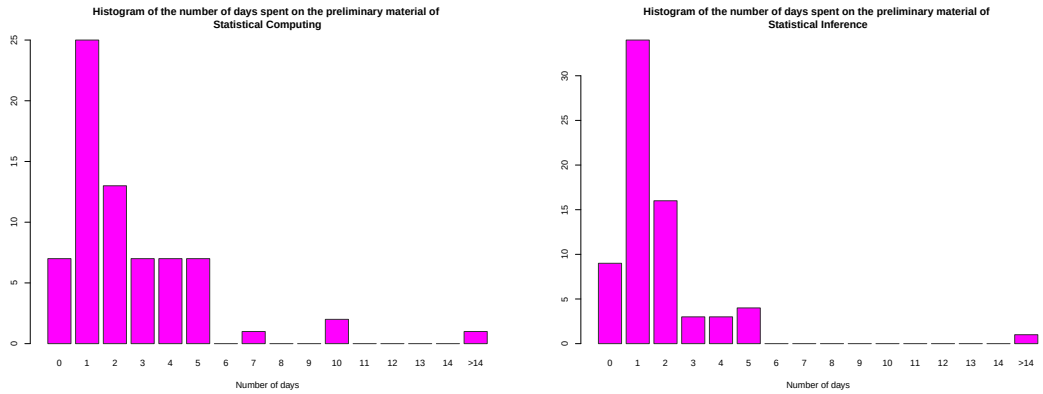
Figure 1: UK 2017–18 Registrations (from institutions supplying UK postal codes)

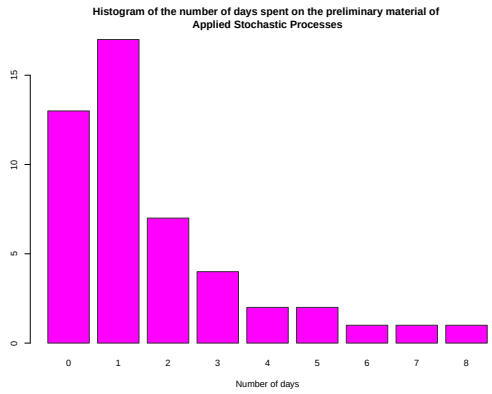
Student feedback

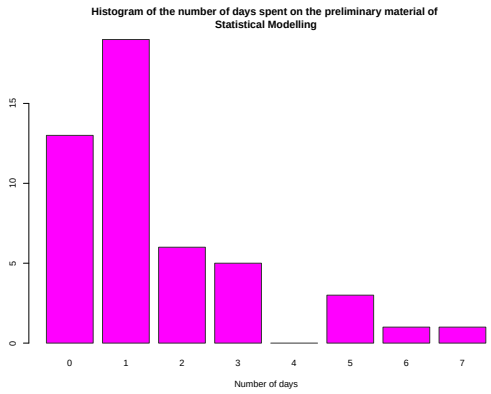
The following summarizes student responses to an anonymous questionnaire completed at the end of each training week.

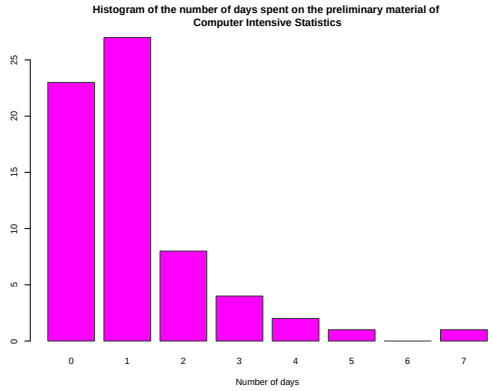
A. Preparation for APTS

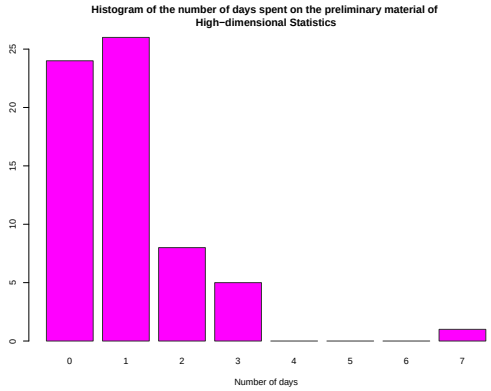
1. Roughly, how many days did you spend on the preliminary material?

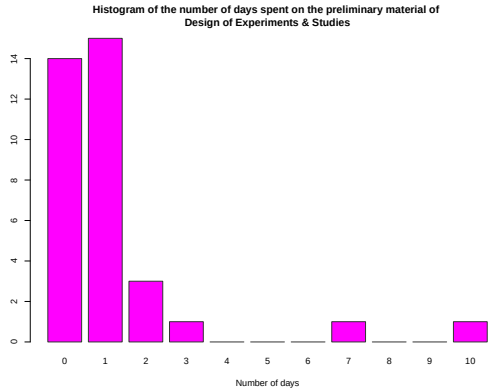


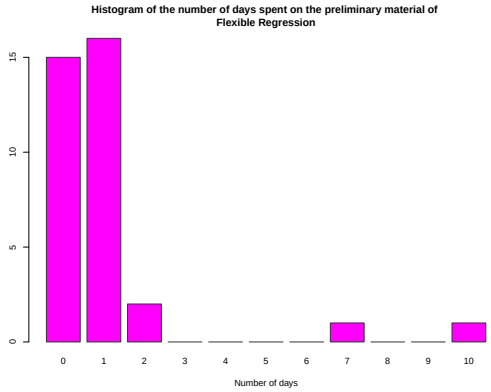












2. Did the preliminary material help you to understand the lectures this week?

	Yes	No	Didn't use
Statistical Computing	55	8	9
Statistical Inference	57	4	10
Applied Stochastic Processes	32	4	12
Statistical Modelling	34	3	11
Computer Intensive Statistics	38	6	22
High-dimensional Statistics	34	6	25
Flexible Regression	19	1	15
Design of Experiments & Studies	19	3	13

B. The APTS week: material covered

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

	Too easy	About right	Too hard
Statistical Computing	8	49	15
Statistical Inference	4	59	9
Applied Stochastic Processes	2	34	12
Statistical Modelling	4	38	7
Computer Intensive Statistics	3	60	4
High-dimensional Statistics	3	48	16
Flexible Regression	2	33	0
Design of Experiments & Studies	2	31	1

2. Did the Oxford R lectures help you with the computer sessions during the week?

	Yes	No	Didn't use
Week 1	17	4	52
Week 2	12	2	34
Week 3	7	2	57
Week 4	2	1	32

3. Did you find the computer sessions/classes helpful?

	Yes	No	Didn't attend
Statistical Computing	53	13	5
Statistical Modelling	41	2	3
Computer Intensive Statistics	47	2	17
Flexible Regression	25	0	10
Design of Experiments & Studies	14	3	17

4. Will you do the module assessments? [Question not asked until Week 2.]

	Yes, required to	Yes, though not required	No
Week 2	19	17	11
Week 3	19	20	26
Week 4	6	10	18

Student costs 2017–18

The following table summarizes the invoices received by APTS sending institutions for the four APTS weeks.

APTS week	Registration fees	Accommodation and food
Cambridge	£21,920	£37,090
Nottingham	£19,840	£38,665
Southampton	£20,000	£35,740
Glasgow	£8,544	£33,665
TOTAL	£70,304	£145,160

Note: Registration fee discounts for students attending all four weeks are all deducted from the final week.

Summary of APTS Alumni Questionnaire Responses (2014–15 Cohort)

Number of respondents: 37

1. What best describes your current status?

```
still studying for PhD: 17
working in academia as statistical scientist: 11
working in academia in another role: 3
working in industry as statistical scientist: 6
working in industry in another role: 0
other: 0
```

2. Which of the APTS weeks did you attend in 2014–15? (specify as many as is appropriate)*

```
Statistical Computing & Statistical Inference: 33
Statistical Modelling & Statistical Asymptotics: 28
Applied Stochastic Processes & Computer Intensive Statistics: 27
Survival Analysis & Nonparametric Smoothing: 20
```

3. Which of the APTS modules ended up connected closely to your eventual PhD research? (specify as many as is appropriate)

```
Applied Stochastic Processes: 12
Computer Intensive Statistics: 18
Nonparametric Smoothing: 3
Statistical Asymptotics: 3
Statistical Computing: 22
Statistical Inference: 19
Statistical Modelling: 19
Survival Analysis: 4
```

4. Has the training given by APTS proved helpful to you in your PhD experience and research?

```
Yes 32 (86%) No 5 (14%)
```

5. Has the training given by APTS proved helpful to you in your present employment? (answer only if you are not still working for your PhD)

```
Yes 17 (77%) No 5 (23%)
```

6. If your answer to either of the previous two questions was yes, which of the following reasons underlie your recommendation? (specify as many as is appropriate)

```
APTS weeks enable broader contacts with more senior academics: 11
APTS weeks enable networking with peers: 18
Other (please specify): 1
The modules provide a broad general training in the area: 30
```

Further details supplied by those answering other:

```
 Great start to PhD studies - a reminder of key concepts, and expansion of these concepts
beyond some BSc / MSc content
```

7. Which of the APTS modules ended up connected closely to your current employment? (specify as many as is appropriate, answer only if you are not still working for your PhD)

```
Applied Stochastic Processes: 5
Computer Intensive Statistics: 9
Nonparametric Smoothing: 1
Statistical Asymptotics: 3
Statistical Computing: 9
Statistical Inference: 6
Statistical Modelling: 9
Survival Analysis: 1
```

8. Would you recommend APTS to someone just starting a PhD in applied probability or statistics?*

```
Yes 32 (86%) No 5 (14%)
```

Additional Notes

1. Current status of those who *would not* recommend APTS:

```
still studying for PhD: 3
working in academia as statistical scientist: 2
```

2. Current status of those who *did not* find APTS useful for their PhD:

```
still studying for PhD: 4
working in academia as statistical scientist: 1
```

Additional Comments

1. I just suggest for APTS organisers to provide an academic transcript alongside the certificate. This would be nice for the alumni who might need to submit their PhD parchment for accreditation overseas.

2. This was one of the most important experiences during my PhD. The material was extremely useful to eventually go through job interviews. I used to have a very limited statistical background. The APTS courses helped me broaden my stats knowledge and successfully commence the PhD research.

3. I found the APTS experience to be largely rewarding - certainly socially and sometimes academically as well, though the most rewarding courses academically were in the first week with Jonty and Finn. Especially brilliant was the statistical inference course, which was I thought perfectly timed at that point in my education - an opportunity to look at what exactly it was that I was doing when I was engaging in statistics, from the ground up, and delivered with great elan. After that I don't remember the courses much, however I didn't attend the computer intensive statistics week, so this could have been excellent. It wasn't made totally clear to me if the homeworks at the end were compulsory or if this was something for my home institution to decide. In the end I only remember doing maybe 3 of them, and it could have been this lack of testing that meant the other units didn't really make an impression on me. Still, it meant at least that I'd heard of most things people were going to talk about for the next 3 years, even if I couldn't tell you exactly what they were!

4. Brilliant courses, only wish I could have attended all of them but I didn't have the budget to purchase a computer and attend all APTS courses in my first year.

5. I really enjoyed the courses, and liked the enthusiasm of the instructors for their subjects.

6. I found that the Statistical Inference course that I participated in was too unrelatable It involved measuring probabilities as expectations or something similar, and I have yet to see another paper look at probabilities and distribution in this way.

7. I like the idea of APTS, but in reality it just didn't work for me. I found the courses that were outside of my field could not hold my attention well enough for a whole week, and courses that were within my field were unfortunately repeating knowledge I already had. The food and accommodation were poor quality, and the organisation in some of the weeks was appalling. As an example, the APTS held at Warwick in 2015 sent information to students prior to the course stating the facilities would be ensuite and when we arrived they were in fact shared bathrooms between many students. When raised with the organiser at the time, my concerns were completely and rudely brushed off. Suffering from anxiety, the surprise shared bathrooms and rudeness of the organiser meant I had an awful and extremely upsetting week that could have been avoided if the pre-course information was truthful. Overall, considering the price paid for the food and accommodation, I would in all honesty much rather have spent the money attending a conference.

Warwick, September 10, 2018

Registration for APTS

Student registration for APTS academic year 2018-19 opens on Friday 21st September 2018, and **closes on Friday 26th October 2018**. Registration applications made after that date will be kept in a priority-ordered reserve list, in case of any cancellations.

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 (who must be a member of academic staff employed by that institution) will be provided with a password enabling him/her to complete the student registration form for 2018-19 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, of their students who are allocated APTS places
- in the case of a student taking all four APTS weeks in the same academic year a 20% rebate of registration fees (20% of 4 x £160) is made
- all financial transactions with individual APTS students, including those relating to travel expenses, are handled by the sending institution

Please see the FAQ, the Billing and Cancellation policy, and the Privacy notice for more specific information, and the list of prerequisites if you are in any doubt as to whether APTS would be suitable for a particular student.

List of sending institutions	APTS contact
Aston University: Mathematics Group	David Saad
Biomathematics & Statistics Scotland	Glenn Marion
Birkbeck University of London: Department of Economics Mathematics and Statistics	Rosalba Radice
Brunel University: Department of Mathematics	Silvia Liverani
Canterbury Christ Church University: The Business School	Prodromos Tsinaslanidis
Cardiff University: School of Mathematics	Anatoly Zhigljavsky
Durham University: Dept of Mathematical Sciences	Jochen Einbeck
Government Communications HQ	Jeremy Bradley
European Molecular Biology Laboratory: European Bioinformatics Institute	Nick Goldman
Francis Crick Institute	Sally Leevers
Heriot-Watt University: Dept of Actuarial Maths and Statistics	George Streftaris
Imperial College London: Business School	Walter Distaso
Keele University: School of Computing and Mathematics	Jie Cheng
King's College London:Department of Biostatistics at the Institute of Psychiatry	Sabine Landau
Lancaster University: Dept of Management Science	Nikos Kourentzes

Lancaster University: Dept of Maths and Statistics	Azadeh Khaleghi
Lancaster University: School of Health and Medicine	Benjamin Taylor
London School of Hygiene and Tropical Medicine	Ruth Keogh
Loughborough University: Department of Mathematics and Statistics	Eugenie Hunsicker
Loughborough University: School of Business and Economics	Nikolaos Argyris
Newcastle University: Dept of Mathematics and Statistics	Colin Gillespie
Northumbria University: Department of Mathematics and Information Sciences	Pete Philipson
Nottingham Trent University: Department of Mathematics and Statistics	Golnaz Shahtahmassebi
NUI Galway: Dept of Mathematics	John Newell
NUI Maynooth: Dept of Mathematics	Caroline Brophy
Open University: Dept of Mathematics and Statistics	Paul Garthwaite
Plymouth University: Peninsula Schools of Medicine and Dentistry	Julian Stander
Plymouth University: School of Computing and Mathematics	Julian Stander
Trinity College Dublin: Statistics Group	Simon Wilson
Umeå University: Department of Statistics	Dr Magnus Ekström
University College Cork: Statistics Department	Michael Cronin
University College Dublin: Statistics Group	Brendan Murphy
University College London: Dept of Infection and Population Health	Andrew Copas
University College London: Dept of Statistical Science	Paul Northrop
University College London: Institute of Child Health	Mario Cortina-Borja
University of Bath: Dept of Mathematical Sciences	Simon Shaw
University of Birmingham: School of Mathematics	Biman Chakraborty
University of Bristol: Dept of Mathematics-Statistics Group	Jonty Rougier
University of Bristol: Dept of Social Medicine	Chris Metcalfe
University of Bristol: School of Earth Sciences	Katherine Cashman
University of Cambridge: Cardiovascular Epidemiology Unit	Stephen Burgess
University of Cambridge: CRI	Simon Tavare
University of Cambridge: MRC Biostatistics Unit	Lorenz Wernisch
University of Cambridge: MRC Human Nutrition Research	Ivonne Solis-Trapala
University of Cambridge: Statistical Laboratory	Sergio Bacallado
University of Cape Town: Department of Statistical Sciences	Freedom Gumedze
University of Cologne: Cologne Graduate School	Dagmar Weiler
University of East Anglia: School of Computer Science	Elena Kulinskaya
University of Edinburgh: Centre for Population Health Sciences	Chris Weir
University of Edinburgh: Roslin Institute	Mark Bronsvoort
University of Edinburgh: School of Mathematics	Finn Lindgren
University of Essex: Department of Mathematical Sciences	Berthold Lausen
University of Exeter: College of Eng Maths and Phys Sci	Chris Ferro
University of Glasgow: Statistics	Duncan Lee
University of Iceland: Dept of Mathematics	Gunnar Stefansson
University of Kent: IMSAS	Jian Zhang
University of Leeds: Dept of Statistics	Jan Palczewski
University of Leeds: Institute of Clinical Trials Research	Deborah Stocken
University of Limerick: Dept of Mathematics and Statistics	Peg Hanrahan
University of Liverpool: Department of Biostatistics	Ruwanthi Kolamunnage-Donna
University of Liverpool: Department of Molecular and Clinical Cancer Medicine	Trevor Cox

University of Liverpool: Dept of Mathematical Sciences	Kamila Zychaluk
University of Manchester: School of Mathematics	Peter Foster
University of Nottingham: Nottingham Geospatial Institute	Jeremy Morley
University of Nottingham: School of Mathematical Sciences	Chris Brignell
University of Oxford: Clinical Research Unit Vietnam	Marcel Wolbers
University of Oxford: Dept of Earth Sciences	Erin Saupe
University of Oxford: Dept of Statistics	Geoff Nicholls
University of Oxford: Nuffield Department of Population Health	Thomas Nichols
University of Oxford: Wellcome Trust Centre for Human Genetics	Julian Knight
University of Reading: Department of Mathematics and Statistics	Fazil Baksh
University of Salford: Centre for OR and Applied Statistics	Phil Scarf
University of Sheffield: Dept of Probability and Statistics	Richard Wilkinson
University of Sheffield: School of Health and Related Research	Stephen Walters
University of Southampton: Department of Ocean and Earth Science	Ivan Haigh
University of Southampton: School of Mathematics	Antony Overstall
University of Southampton: School of Social Sciences	Peter Smith
University of St Andrews: School of Maths and Statistics	Len Thomas
University of Strathclyde: Department of Mathematics and Statistics	Michael Grinfeld
University of Surrey: Dept of Mathematics	Janet Godolphin
University of Warwick: Dept of Statistics	Wilfrid Kendall
University of Warwick: MAS CDT/MOAC DTC	Mark Barrow
University of Warwick: MASDOC DTC	Andreas Dedner
University of Warwick: Medical School	Nigel Stallard
University of Warwick: Systems Biology DTC	Vicky Buchanan-Wollaston
University of Wolverhampton: Statistical Cybermetrics Research Group	Paul Wilson
University of York: Centre for Reviews and Dissemination	Mark Simmonds
University of York: Department of Mathematics	Stephen Connor

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Page contact: APTS Programme Manager
Last revised: Sat 1 Sep 2018

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

For students who participate in all four APTS weeks in the same academic year, 20% of the total registation fees will be rebated. This is achieved by reducing the registation fee on the final invoice from £160 to £32 (in 2018-19).

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

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.
3. Occasionally it will be necessary for the named module leader to change following the initial registration period. In the event of a notification of change of module leader, if a cancellation request is made **within six weeks of the notification and prior to the relevant APTS week** then charges for registration, accommodation and food will be reduced by 100%.

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.
