Paper for 5. APTS year 13 (2019–2020): Summary report to Executive Committee

Preliminary: some summary counts for all years 2007–2020

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	2018-19	2019-20
155 (NA)	174 (NA)	176 (NA)	141[1] (NA)

Number of APTS lecturers to date: 34 (This will increase to 35 in 2020–21).

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

Member Institutions

In 2019-2020 there were 26 MIs, all located in the UK and Ireland.

APTS weeks, academic year 2019-2020

Week 1, 16-20 December, 2019, Cambridge:

- *Statistical Computing* (Darren Wilkinson)
- *Statistical Inference* (Simon Shaw)
- Evening sessions: RSS Reception, Pub quiz, Academy Dinner

[APTS Week Cancelled] Week 2, 30 March-3 April, 2020, Southampton:

- *Applied Stochastic Processes* (Nicholas Georgiou and Matt Roberts)
- *Statistical Modelling* (Helen Ogden)

[APTS Week Cancelled] Week 3, 6-10 July, 2020, Nottingham:

- *Computer Intensive Statistics* (Paul Jenkins)
- *High-dimensional Statistics* (Yi Yu)

[APTS Week Cancelled] Week 4, 14-18 September, 2020, Oxford:

- *Flexible Regression* (Claire Miller and Tereza Neocleous)
- *Design of Experiments & Studies* (Dave Woods)

Registrations

A total of 187 unique students were registered to attend one or more APTS week in 2019-2020. Numbers of registrations for each of the four weeks were 146, 122, 116, 105, respectively. The corresponding attendance figures were 141, 0, 0, 0, respectively.

At the end of the registration period, we were able to accommodate all students.

Of those 187 students:

- 73 were registered to attend all 4 weeks and 0 students actually did so.
- 145 were first year students in statistics or probability.
- APTS Member Institutions supplied 134 of the 187 applications.

[1] This is the attendance for week 1 only, due to the cancellation of weeks 2–4. The number of participants due to attend weeks 1–4 is 184.

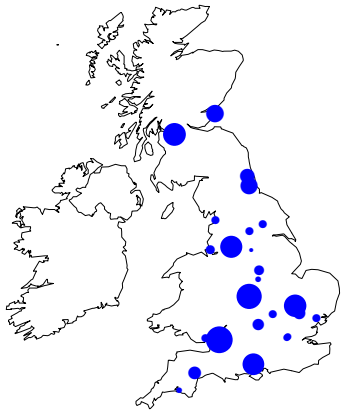


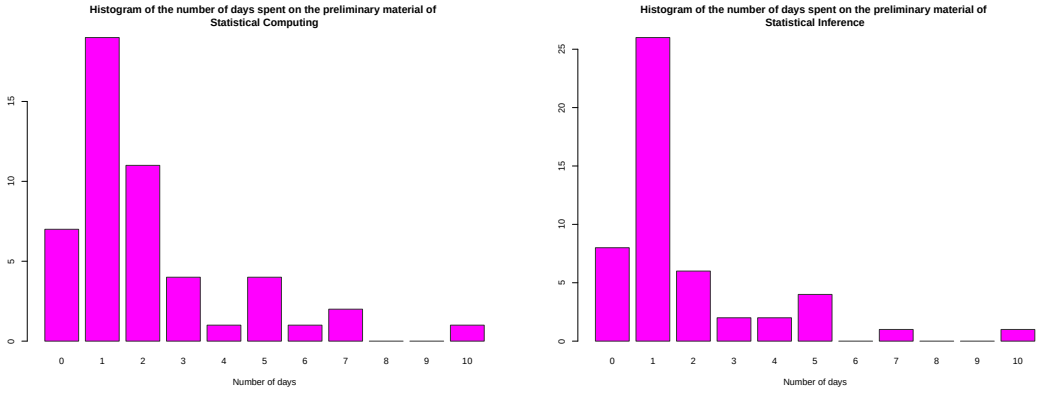
Figure 1: UK 2019-2020 Registrations (from institutions supplying UK postal codes)

Student feedback

The following summarizes student responses to an anonymous questionnaire completed at the end of training week 1 (all other weeks were cancelled due to Covid-19)

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	39	4	7
Statistical Inference	36	4	10

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	4	42	4
Statistical Inference	8	32	9

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

	Yes	No	Didn't use
Week 1	15	1	33

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

	Yes	No	Didn't attend
Statistical Computing	36	10	4

4. Will you do the module assessments?

	Yes, required to	Yes, though not required	No
Week 1	14	14	20

Student costs 2019–20

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

APTS week	Registration fees	Accommodation and food
Cambridge	£23,360	£41,530
Southampton	£NA	£NA
Nottingham	£NA	£NA
Oxford	£NA	£NA
TOTAL	£23,360	£41,530

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

Summary of APTS Alumni Questionnaire Responses (2016–17 Cohort)

Number of respondents: 38

1. What best describes your current status?

```
other (please specify): 4
still studying for PhD: 20
working in academia as statistical scientist: 9
working in academia in another role: 3
working in industry as statistical scientist: 1
working in industry in another role: 1
```

Of those answering other:

```
Completing PhD and working in academia in another role part-time
I am a part-time PhD student working in retirment after a full, non-academic,
   career in fields at best indirectly rlated to the subject of my PhD.
Postdoctoral research fellow
Switched to non-statistical PhD, just finishing up.
Unemployed
```

2. Which of the APTS weeks did you attend in 2016–17? (specify as many as is appropriate)*

```
Statistical Computing & Statistical Inference: 25
Applied Stochastic Processes & Statistical Modelling: 29
Computer Intensive Statistics & High-dimensional Statistics: 24
Survival Analysis & Nonparametric Smoothing: 17
```

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

```
Applied Stochastic Processes: 7
Computer Intensive Statistics: 9
High-dimensional Statistics: 11
Nonparametric Smoothing: 6
Statistical Computing: 9
Statistical Inference: 13
Statistical Modelling: 20
Survival Analysis: 4
```

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

```
Yes 29 (76%) No 9 (24%)
```

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 10 (53%) No 9 (47%)
```

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: 8
APTS weeks enable networking with peers: 18
Other (please specify): 2
The modules provide a broad general training in the area: 27
```

Further details supplied by those answering other:

```
Exposure to methods favoured by my supervisors
the modules covered a lot in a week and have turned out to be even more
   useful to me subsequently than I thought they would be while I was doing them
```

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: 4
Computer Intensive Statistics: 2
High-dimensional Statistics: 5
Nonparametric Smoothing: 1
Statistical Computing: 5
Statistical Inference: 6
Statistical Modelling: 9
Survival Analysis: 3
```

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

```
Yes 35 (92%) No 3 (8%)
```

Additional Notes

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

```
still studying for PhD: 1
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: 4
working in academia in another role: 1
```

Additional Comments

1. My PhD is not connected to any of the APTS modules, nevertheless I'm glad that I took part if two weeks and wish I participated in the other two as from my current perspective (transitioning towards statistics) it was a valuable experience.
2. It was incredibly useful - thank-you
3. I would recommend APTS only to students who did not have statistics as part of their undergraduate degree. I did not find it useful since my undergrad was in Statistics and in my PhD program it was mandatory to attend all four APTS.
4. It is a very nice initiative.
5. The best thing about APTS was meeting other phd students.
6. APTS was a wonderful break from the stresses of PhD in first year, which gave me the cohort support I didn't have, and also helped ease the transition to PhD by prpoviding some form of structured learning again, one of the main issues I had with the PhD
7. The APTS course was especially useful to me, as there are not that many academics that know my field well.

8. I attended only one week, comprising two modules, because the other choices seemed quite irrelevant to my research. The two I attended seemed to me to be basic for any statistics research. I do not know whether that was intended in the design of the whole course, but i should have liked to attend more basic rather than very specialised courses. (By 'basic' I emphatically do not mean 'easy'!)

9. As a trained biologist, I lacked the basics for most APTS courses. However, I was able to follow most of the sessions but had a hard time applying it to my own research as it has been too theoretical.

Warwick, January 4, 2021

Please read our student and staff community guidance on COVID-19

Registration for APTS 2019-2020

Student registration for APTS academic year 2019-20 opens on Friday 27th September 2019, and **closes on Friday 25th October 2019**. 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 them to complete the student registration form for 2019-20 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
Biomathematics and Statistics Scotland	Glenn Marion
Canterbury Christ Church University: The Business School	Prodromos Tsinaslanidis
Cardiff University: School of Mathematics	Anatoly Zhigljavsky
Durham University: Dept of Mathematical Sciences	Jochen Einbeck
European Molecular Biology Laboratory: European Bioinformatics Institute	Nick Goldman
Imperial College London: Department of Mathematics	Nick Heard
Keele University: School of Computing and Mathematics	Jie Cheng
Keele University: School of Medicine	Ivonne Solis-Trapala
Lancaster University: Department of Management Science	Linda Hendry
Lancaster University: Dept of Maths and Statistics	Dimitry Korshunov
Lancaster University: School of Health and Medicine	Benjamin Taylor
London School of Hygiene and Tropical Medicine	Ruth Keogh
Loughborough University: School of Business and Economics	Nikos Argyris
Maynooth University: Department of Mathematics and Statistics	Andrew Parnell

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
Open University: Dept of Mathematics and Statistics	Paul Garthwaite
Trinity College Dublin: Statistics Group	Simon Wilson
University College Dublin: Statistics Group	Brendan Murphy
University College London: Dept of Statistical Science	Paul Northrop
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	Mathieu Gerber
University of Bristol: School of Geographical Sciences	Levi John Wolf
University of Cambridge: CRI	John Marioni
University of Cambridge: MRC Biostatistics Unit	Paul Newcombe
University of Cambridge: Statistical Laboratory	Sergio Bacallado
University of Cape Town: Department of Statistical Sciences	Freedom Gumedze
University of Edinburgh: MRC Institute of Genetics and Molecular Medicine	Catalina Vallejos
University of Edinburgh: School of Mathematics	Finn Lindgren
University of Essex: Department of Mathematical Sciences	Hongsheng Dai
University of Exeter: College of Eng Maths and Phys Sci	Chris Ferro
University of Glasgow: Statistics	Nema Dean
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: Dept of Mathematical Sciences	Kamila Zychaluk
University of Manchester: School of Mathematics	Peter Foster
University of Nottingham: School of Mathematical Sciences	Philip O'Neill
University of Oxford, MRC Weatherall Institute of Molecular Medicine	Valentina Iotchkova
University of Oxford: Department of Computer Science	Jim Davies
University of Oxford: Dept of Statistics	Garrett Morris
University of Oxford: Nuffield Department of Population Health	Thomas Nichols
University of Oxford: Wellcome Trust Centre for Human Genetics	Julian Knight
University of Plymouth: School of Engineering, Computing and Mathematics	Julian Stander
University of Sheffield: School of Mathematics and Statistics	Kostas Triantafyllopoulos
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	David Greenhalgh
University of Surrey: Dept of Mathematics	Janet Godolphin
University of Warwick: Dept of Statistics	Mark Steel
University of Warwick: Warwick Medical School	Deepak Parashar
University of Wolverhampton: Statistical Cybermetrics Research Group	Paul Wilson
University of York: Department of Mathematics	Stephen Connor

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Page contact: APTS Programme Manager
Last revised: Mon 10 Aug 2020

Please read our student and staff community guidance on COVID-19

Billing and cancellation 2019-20

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 registration fees will be rebated. This is achieved by reducing the registration fee on the final invoice from £160 to £32 (in 2019-20).

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%.
4. APTS expects all participants to abide by codes of conduct of the APTS week host institutions (see APTS week informations) and reserves the unlimited right to cancel any registration without prejudice in the event of violation of said codes of conduct.

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 APTS.

Force Majeure

The liability of APTS in the event of a failure or delay in the performance of its obligations under this Contract, if such performance is delayed or hindered by the occurrence of an unforeseeable act or event which is beyond its reasonable control ("Force Majeure Events") shall be limited to the reimbursement of any fees already paid in respect of obligations not performed.

Acts or events constituting Force Majeure Events shall include, but not be limited to Act of God, government intervention, or a change in the law, strikes, industrial dispute, civil unrest, riots, rebellions and wars.

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