

THE CAMBRIDGE STATISTICS DISCUSSION GROUP

Monday 2nd December 1996 7:15 for 7:45

The Statistical Laboratory, 16 Mill Lane, Cambridge

A Likelihood Model in the Presence of Outliers

Tim Drye

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Abstract: There are many situations where it is unhelpful to use squares methods, e.g. mean, standard deviation and least squares regression. Situations will be demonstrated where these methods give misleading results and a review given of work done over the years to develop methods which are more appropriate when assumptions of least squares analyses are not met.

The talk will be concluded by illustrating a likelihood model which assumes power law tails. This can be shown to be consistent with trimmed least squares estimates. As such they are plausible even when a significant part of the data is extreme.

Speaker: Tim Drye completed his first degree and PhD at Sheffield University where he specialised in statistical physics. In 1990 he moved to the Cavendish Laboratory, Cambridge before taking a position at Anglia Polytechnic University in 1992. During the current year he has been on sabbatical from teaching in order to establish a statistical consultancy group for business marketing and decision making called DataTalk (Statistical Solutions) Ltd.

Directions: The Statistical Laboratory is part of the Department of Pure Mathematics and Mathematical Statistics which is situated on the North side of Mill Lane (right hand side starting from Trumpington Street). Use the West entrance which is reached through the car park guarded by traffic lights; proceed to the seminar room (S27) on the second floor. The outside door is locked but will be attended from 7:15 to 7:45. There is no car parking on site (the Lion Yard multi-storey is nearby).

Next Meetings:

20th Jan—Chris Gilligan (Plant Sciences) on

‘Making Sense of Botanical Epidemics—Where Models Meet Data.’

19th Feb—Tim Cole (Dunn Research) on

‘Growth Charts for Now and Then.’

11th March—Mark Hill (ITE) on

‘Scaling of Ecological Variables—How Can it be Made More Natural?’

In May the group will visit the Institute of Terrestrial Ecology at Monk’s Wood.

Supper: Some members eat regularly in the University Centre before each meeting at 6:15. Feel free to join them.

Subscriptions: are now due for the 1996–7 session.

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