
Abstracts are invited in research areas related to visual fields and optic nerve head imaging.

INSTRUCTIONS FOR ABSTRACT SUBMISSION

Submission:
- One of the authors must be a member of the International Perimetric Society. Application details are available at: www.perimetry.org.
- Abstracts should be submitted as an E-mail attachment (Microsoft Word Document) to the IPS Secretary at: david.henson@manchester.ac.uk by 17th March 2006.
- Abstracts need to follow the formatting details given below.
- All presenters of accepted abstracts will be required to register for the conference.
- Faxed or posted submissions will not be accepted.

Acknowledgement and Notification:
- Abstract submissions will be acknowledged. Acknowledgment of receipt does not imply acceptance.
- Oral and poster presentations will be selected from the submitted abstracts.
- All submissions will be reviewed by the programme committee and applicants will be notified of acceptance by the end April 2006
- All accepted abstracts will be published in Acta Ophthalmologica.

Formatting details:
- Size: Maximum 350 words - word count should include: Title, Authors, Institution/City/Country, and the body of the abstract.
- Font: All text should be 12 pt, Times New Roman and single spaced.
- Title: Uppercase, bold and centred.
Sample Abstract

A NEW SPATIAL FILTER FOR VISUAL FIELD DATA: TESTING AND EVALUATION

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Purpose: To demonstrate how a new spatial filter could be used on visual field data to improve diagnosis of visual field progression.

Methods: First, 5000 noisy visual field series (consisting of 5 years worth of annual tests) were simulated for a stable field. Next, 5000 noisy visual field series (of 5 years) based on each of ten different artificial localised defects (consisting of 1 or more points deteriorating at 2dB/yr, and the 2 points at either end of the defect deteriorating at 1dB/yr) were simulated. The probabilities of each point from each series being flagged as progressing by pointwise linear regression were measured. An unrealistic non-glaucomatous defect, perpendicular to the expected shape, was tested in the same way.

Results: For a stable field, the proportion of points flagged as progressing (all of which are false positives) was 0.59% for the raw data, improving to 0.04% after filtering. Out of the localised defects tested, the new filter increased the proportion of progressing points successfully detected in all ten cases (on average from 19.6% to 33.3%) whilst the Gaussian filter reduced this proportion in three of the cases (and gave an average of only 22.6%). The proportions of points detected from the unrealistic defect fell after filtering the raw data (from 19.7% to 10.0%) whereas Gaussian filtering increased this proportion to 30.0%

Conclusions: The new spatial filter decreases the number of false positives when detecting progression by reducing the level of noise present. The new filter behaves and discriminates quite differently to the Gaussian filter in that it significantly increases the probability of detecting true deteriorating points (even in localised defects) and it also reduces the chances of flagging unrealistic, non-glaucomatous defects. The filter could provide a useful tool for improving visual field measurements.