



BMS-ANed 2018 Spring Meeting: Celebrating Statistics Hans van Houwelingen Award 2018

Jury Members:

- Marta Blangiardo (Imperial College, London)
- Clelia Di Serio (San-Raffaele University Hospital, Milan)
- Georg Heinz (Medical University of Vienna)



Evaluation process

Method.

- 27 Papers from all over the world.
- Type of Journals: very relevant Journals
- Type:
 - Biostatistics:stat med/SMMR/Biostatistics/JRSS;
 - Biology:heredity/theory of applied genetics/PloONE ecc
 - 3 meetings of the committee
- First selection of 9 papers (3 for each member of the committee)



Criteria

Jury decision was unanimously. Main Evaluation Criteria (score 1-5).

- **general interest**
 - **relevance of application**
 - **type of journal**
 - **novelty**
 - **reproducibility**
 - **writing style**
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Awarded paper



Identifying the source of food-borne disease outbreaks: An application of Bayesian variable selection

***Rianne Jacobs, Emmanuel Lesaffre, Peter FM
Teunis, Michael Hohle and Jan van de Kassteele***



General interest and relevance

- Strengthening surveillance of and response to foodborne diseases is one important goal in many international organization such as CDC
- John Snow's contribution to Cholera eradication: need statistics and epidemiology.

Statistical approach by Jacobs et al.

- **help in**
 - **classifying responses correctly,**
 - **selecting covariates in presence of confounding and**
 - **accounting for effect of missing data**
 - **is fundamental in identifying the responsible food source.**
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type of journal : SMMR

The jury evaluated the type of journal from two different points of view:

1. Journal should emphasize applications AND biostatistics methodology proposed.
2. SMMR very appropriate journal
 - it represents one of the leading vehicle for articles in all the main areas of medical statistics,
 - highly ranked and with a very increasing IF (5 – years IF 4.7)



Novelty

- First formal statistical procedure for analytic food-borne disease outbreak investigations.
 - Bayesian methods results a very effective way for public health community.
 - The authors seriously take into account possible usefulness of their methods for PH community.
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reproducibility

- The observational data set is very well described. Since this is not a RCT reproducibility should be evaluated on the methodology and statistical tools
 - Authors provide a complete supplementary material where model statement for the likelihood and the SSVS priors are discussed and presented in details with the related R package.
 - Model performance is very well discussed and presented following two different perspectives in section 3.6
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writing style

One of great strengths of the paper is the writing style:

- Not only from syntactic point of view
- but has a very good linguistic rhythm
- is very well organized,
- easy to follow
- and has a strong logical structure.

This paper is very good example of marriage between

- strong statistical methodology
 - and high communicating skills
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Conclusion

- The paper convinced the jury!
 - Get convinced yourselves!
 - Congratulations to Rianne Jacobs!
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