

## Issues in Generalized Linear Modeling

Statistical Area  
October 16<sup>th</sup> 2018

Aula Magna  
15.00-16.00

Istat, Via C. Balbo n. 16 - Rome

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<b>PURPOSE</b>	<p>This talk discusses several topics pertaining to generalized linear modeling. With focus on categorical data, the topics include (1) bias in using ordinary linear models with ordinal categorical response data, (2) interpreting effects with nonlinear link functions, (3) cautions in using Wald inference (tests and confidence intervals) when effects are large or near the boundary of the parameter space, and (4) the behavior and choice of residuals for Generalized Linear Models. I will present few new research results, but these topics got my attention while I was writing the book "Foundations of Linear and Generalized Linear Models" and revising the book "An Introduction to Categorical Data Analysis."</p>
<b>TARGET GROUP</b>	<p>The course is intended for researchers with a Master's degree in statistics, and researchers applying GLMs in their working activity</p>
<b>PREREQUISITES</b>	<p>Applied knowledge of GLMs</p>
<b>TRAINER</b>	<p><b>Alan Agresti</b> <i>Distinguished Professor Emeritus University of Florida</i></p> <p>Alan Agresti is Distinguished Professor Emeritus, Department of Statistics, University of Florida. The past seven years he has also been visiting professor for half the year at Harvard University. He has written seven books and more than 200 research articles. His book 'Categorical Data Analysis' (3rd edition, 2013) has received nearly 20,000 citations in journal articles. Other books include 'Analysis of Ordinal Categorical Data' (2nd edition, 2010), 'Foundations of Linear and Generalized Linear Models' (2015), 'Statistical Methods for the Social Sciences' (5th edition, 2018), and 'Statistics: The Art and Science of Learning from Data' (4th edition 2016). He received an Honorary Doctor of Science from De Montfort University in 1999, the Statistician of the Year Award from the Chicago chapter of the American Statistical Association in 2003, and the first Herman Callaert Leadership Award in Biostatistical Education and Dissemination from Hasselt University, Belgium in 2004. He has been awarded Fellow designation by both the American Statistical Association and the Institute of Mathematical Statistics. He has lectured on categorical data methods in more than 30 countries. For further details, see <a href="http://www.stat.ufl.edu/~aa">www.stat.ufl.edu/~aa</a>.</p>
<b>TRAINING METHODS</b>	<p>The course will be based on the presenter's lecture notes</p>

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**BENEFITS TO  
PARTICIPANTS**

Increase knowledge in GLMs, underlying specific applied issues, such as (1) bias in using ordinary linear models with ordinal categorical response data, (2) effects interpretation with nonlinear link functions, (3) use of Wald inference, and (4) the behavior and choice of residuals for GLMs

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