

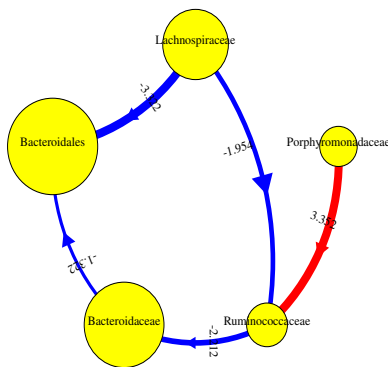
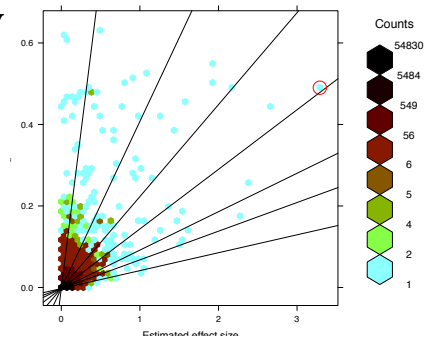
Toby Kenney

Statistics and Algebra



Dr. Kenney has a wide variety of research interests in data science with applications to the microbiome; actuarial science; and pure mathematics.

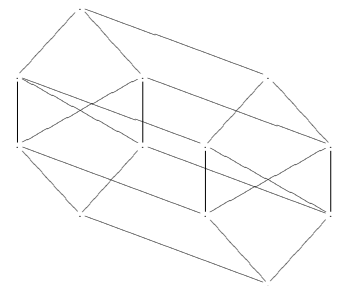
Data Science: Dr. Kenney has worked on many problems in the methodology and theory of data mining, including methods to rank and select important variables from overwhelming numbers of potentially interesting variables; and to correct for the average effect of errors in the measurement process.



Microbiome: Dr. Kenney is developing methods to understand the structure and temporal dynamics of the microbiome. This combines Dr. Kenney's current research on measurement error methods and previous research on phylogeny, where he developed the COLD package to fit codon models of molecular evolution.

Actuarial Science: Dr. Kenney is interested in improving the assessment of risk aversion. The aim is to move from a single number to a multidimensional measurement which better captures the subtleties of an individual's risk aversion and its effect on their insurance needs.

Pure Mathematics: Dr. Kenney is interested in studying the combinatorics behind many structures arising in Data Science. He is particularly interested in the structure of lattices of equivalence relations, and groups generated by reflections, such as permutation groups.



For more information, contact:

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