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The Irreducible Error: What Statistics and Management Have in Common

The truth is that some error, no matter how hard we try, simply can't be modelled away. That irreducible error that stubbornly remains, no matter how time we have spent selecting predictors, or agonising over parameter tuning. Accepting that there will always be some randomness in statistics goes a long way to helping manage a technical team.

In this talk, Sophie will draw on her own experience and lessons learned from mentors, friends and colleagues to argue the most important lesson in management (and statistics) is to embrace uncertainty and act wisely in its presence. In statistics, we learn to distinguish noise from signal, not to eliminate it. When managing a team, the aim should be to create conditions where people can confidently deliver their best work.

To achieve this, how can managers ensure that they resist the temptation to overfit measurable performance for what matters most (trust, motivation, and safety)? Perhaps more crucially, how can a manager have the honesty to say when their model is wrong and they need to refine their approach? Throughout, Sophie will ask and challenge if the habits and traits that make a great statistician, are also those that make a great statistician.

As a Bayesian statistician, Sophie would like you to know that no p-values were harmed in the preparation of her talk and significance is not guaranteed.

Special/ Invited session

Classification

Mainly application

Keywords

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