

UNIVERSITY OF SYDNEY

SCHOOL OF MATHEMATICS AND STATISTICS

Statistics Seminar

Friday, 18 March, 2.00pm

Carslaw 173

**Exploring the theoretical properties and applications of
elliptical data depth**

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Abstract

An affine-equivariant depth function for multivariate data is proposed which is easily computed in any practical dimension. This depth function is used as the basis of an affine-equivariant multivariate median and an affine-invariant test for multivariate location. The theoretical properties of the empirical depth measure and its applications will be discussed. Several examples are presented in order to illustrate these concepts.

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