

# ***JOURNAL OF APPLIED STATISTICS***

## **“GOPAL KANJI PRIZE”**

**2008**

**The *Journal of Applied Statistics* and Taylor & Francis are delighted to announce the annual prize for the best article published in the Journal.**

**Winners are: Professor Philip Prescott & Professor Norman Draper**

**Article: *D-optimal mixture component-amount designs for quadratic and cubic models***

**Vol. 35 No. 7 pp739-749**

### **Abstract**

When the total amount of a mixture of ingredients needs to be taken into account (in addition to the composition of its ingredients), an experimental design requires several levels of the amount. Designs for such situations are discussed, and *D*-optimal choices are made for fitting quadratic and cubic models, for various numbers of experimental units.

Click [here](#) to read the winning article.

**2<sup>nd</sup> place: Sugnet Gardner-Lubbe, Niël le Roux & John C. Gower**

**Article: *Measures of fit in principal component and canonical variate analyses***

**Vol.35, No. 9 pp 947-965**

### **Abstract**

Treating principal component analysis (PCA) and canonical variate analysis (CVA) as methods for approximating tables, we develop measures, collectively termed predictivity, that assess the quality of fit independently for each variable and for all dimensionalities. We illustrate their use with data from aircraft development, the African timber industry and copper froth measurements from the mining industry. Similar measures are described for assessing the predictivity associated with the individual samples (in the case of PCA and CVA) or group means (in the case of CVA). For these measures to be meaningful, certain essential orthogonality conditions must hold that are shown to be satisfied by predictivity.

Click [here](#) to read the article.