

Einladung zum Vortrag

Am Montag, dem 7. April 2014, spricht

Herr PD Dr. Robert Hable

Lehrstuhl für Stochastik

Mathematisches Institut der Universität Bayreuth

über das Thema

Avoiding Complex Answers to Trivial Questions: A Modern View On Statistical Hypothesis Testing and Practical Data Analysis

Abstract

Nowadays, statistical hypothesis testing is a key tool in statistical data analysis. It was originally developed only for special applications, e.g., in industrial quality control but is standardly used in most natural and social sciences now. Statisticians are more and more critical of the excessive and often abusive use of statistical tests and it is an interesting fact that Fisher (one of the inventors of statistical testing) even held the opinion that using statistical tests in science does not make sense at all. Contrary to statisticians, mathematicians like hypothesis testing because it leads to nice optimization problems which can often be solved by beautiful mathematics. Also scientists like testing because it seems to give definite answers (“there is a highly significant effect”) to complicated research questions. However, this is a misunderstanding. Answers provided by statistical tests are complex and frequently misinterpreted. And the questions which are answered by performing statistical tests are often inappropriate and differ from the interesting questions which should have been asked.

In the talk, we will discuss these problems when dealing with statistical testing and identify examples of tests which should generally be avoided. In addition, we will also discuss alternatives to statistical testing. The talk is addressed to practitioners. A detailed prior knowledge of statistics or mathematics is not necessary but some practical experience with statistical testing will be helpful.

Beginn: 16.15 Uhr, 7. April 2014

Ort: S 135, NW III, Universitätsgelände