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EDITORIAL

Proceedings of Reisensburg 2016–2017

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The conference "Statistical Computing" is held annually at the Reisensburg castle near Günzburg (Germany) by the working group "Biostatistics" of the German Classification Society and by the working group "Statistical Computing" of the German Region of the International Biometric Society and of the German Society of Medical Informatics, Biometry and Epidemiology (GMDS). The conference covers recent topics in biostatistics and bioinformatics, with a special focus on machine learning techniques and their implementation and application. Since 2009, selected contributions to the workshop have been published in special issues of computational statistics journals (Binder et al. 2013, 2014; Kestler and Schmid 2015; Kestler et al. 2018). Being either research or tutorial papers, all articles featured in a Reisensburg special issue undergo the journal's regular reviewing process.

This year's special issue features contributions to the 2016 and 2017 Statistical Computing conferences, which took place from July 17, 2016 to July 20, 2016 and July 23, 2017 to July 25, 2017, respectively.

Beggel et al. (2019) propose an anomaly detection procedure for time series based on the learning of shapelets. Shapelets are subsequences of fixed length of a time series. Here, the basic idea is to select shapelets that can reliably be detected in normal time series, but some do not fit to the anomalies. The anomaly detection part of the approach uses a modified version of Support Vector Data Description. The new algorithm ADSL is evaluated on 28 benchmark data sets and demonstrates that it reliably detects anomalous time series.

Casalicchio et al. (2019) present OpenML an R package that connects to the online machine learning platform OpenML. OpenML is designed to create a frictionless, networked ecosystem for machine learning, allowing people to collaborate and build directly on each other's latest ideas, data and results while at the same

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time ensuring reproducibility. The utility of the new R-package is demonstrated in combination with the R-package mlr.

Welchowski and Schmid (2019) introduce a supervised learning algorithm entitled "Sparse Kernel Deep Stacking Networks", which consists of a series of kernel regression models that build on one another to produce a multi-layer method for regression and classification. Being an extension of earlier deep kernel regression algorithms, the method features additional tools for regularization and improved prediction, e.g., dropout and a subsampling-based ensemble strategy. The paper is accompanied by the R package kernDeepStackNet.

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