Managing chronological objects with **timeDate** and **timeSeries**

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Time and date management plays an essential role in financial applications with data recorded in different time zones.

In this talk, we describe the concepts and methods behind the S4 classes `timeDate` and `timeSeries` used in the Rmetrics packages for financial data with time and holiday management. In particular, we will explore how `timeDate` (Würtz and Chalabi, 2009a) allows mixing data collected in different time zones and with different daylight saving time rules (DST). Selected examples will be provided to show its functionality and advantages compared to the other time and date classes. Typical use cases are the management of business holidays or selection of the last working day in a month.

The second part of the presentation will focus on the enhanced implementation of the `timeSeries` class in the package timeSeries (Würtz and Chalabi, 2009b), which is extremely fast. It represents a good example of how to implement an efficient S4 class. Examples will be provided to demonstrate how to use the `timeSeries` class.

Finally, we will also discuss recent and future development directions of the `timeDate` and `timeSeries` packages.

References

Würtz, D. and Y. Chalabi (2009a). *The timeDate Package.* cran.r-project.org.

Würtz, D. and Y. Chalabi (2009b). *The timeSeries Package.* cran.r-project.org.