**Data Mining in Credit Risk**

**Typ:** Seminar

**Semester:** WS 2013/2014

**Ort:** Wird noch bekannt gegeben.

**Zeit:** Blockveranstaltung. Zeit wird noch bekanntgegeben.

**Dozent:** Dr. Höchstötter, Dr. Nazemi

**SWS:** 2

**LVNr.:**

**Prüfung:**  Vortrag, schriftliche Ausarbeitung

**Hinweis: To be held in German and English**

Data mining includes various algorithms and methods from statistics, artificial intelligence, machine learning and database systems. Data mining has been applied in diverse disciplines across several industries including finance as well as business problems such as bankruptcy prediction, fraud detection, portfolio analysis and consumer relationship management. In this seminar, we are interested in the following applications of data mining in credit risk

* Credit scoring using Social Network Data
* Application of Data Mining in Basel III
* Application of Data Mining in Portfolio Management
* Profit scoring
* Loss-given-default Modeling
* Scorecard implementation
* Discretization Algorithms for PD (e.g. CAIM, F-CAIM, CADD)

**Literatur:**

1] Charu C. Aggarwal, (2011). Social Network Data Analytics, Springer.

2] Engelmann, B. and R. Rauhmeier, (2011). The Basel II risk parameters: Estimation, validation, and stress testing. Springer, Berlin.

3] Tan, P. N., M. Steinbach, and V. Kumar, (2006). Introduction to Data Mining. Addison Wesley.

4] Thomas, L. C. (2009). Consumer Credit Models. Oxford, UK: Oxford University Press.

5] Van Gestel, T. and B. Baesens, (2009). Credit Risk Management. Oxford, UK: Oxford University Press.

6] Tsai, C.J et al. (2008). A discretization algorithm based on Class-Attribute Contingency Coefficient, Information Sciences, Vol. 178, pp. 714-731.

**Anmerkungen**

Eine vorherige Anmeldung per Email an markus.hoechstoetter@kit.edu oder Abdolreza.nazemi@kit.edu  wird erbeten.