In the summer term 2018 Prof. Dr. An Chen and Nils Sørensen are going to offer the following seminar:

# **Special aspects of insurance economics (master)**

## Content

This seminar focuses on **life and pension insurance**. We mainly deal with the fair valuation and risk management of equity/unit-linked life and pension insurance products. The seminar is based on scientific papers that summarize recent results in this area, and particularly addresses some ongoing issues like collective risk sharing, customer protection, and the role of traction costs.

## Target group

The seminar is suitable for Master students in *Wirtschaftsmathematik*, *Wirtschaftswissenschaften* or *Finance*. Previous knowledge in *Personenversicherungsmathematik*, *Insurance Economics* and *Finanzmathematik 1* are helpful.

# Seminar performance

Typically, seminar papers are distributed to a group of 2 students.

The seminar performance consists of three parts:

- A seminar presentation about a selected topic. The presentation typically includes some **theoretical derivations / model introduction** and some **numerical part** that applies the results in a realistic setup.
  - Duration of the presentation: 90 minutes (including discussion).
- A written formulation of the presentation documents as a support for the participants of a maximum length of two pages.
  - Delivery of the presentation documents: at least one week before the presentation via e-mail to nils.sorensen@uni-ulm.de. The creation of the presentation documents is a performance of the whole group.
- **Active participation** in this seminar.

Based on the performance, every participant will be credited with an (internal) grade.

#### Seminar date

This seminar takes place as a block seminar. The attendance at all seminar dates is required.

## Seminar papers

- 1. Miltersen, K.R.; Persson, S.-A.: Guaranteed Investment Contracts: Distributed and Undistributed Excess Return, Scandinavian Actuarial Journal, Vol. 4, pp. 257-279, 2003.
- 2. Gatzert, N.; Holzmüller, I.; Schmeiser, H.: Creating Costumer Value in Participating Life Insurance, *Journal of Risk and Insurance*, Vol. 79, No. 3, pp. 645-670, 2012.
- 3. Milevsky, M. A., & Promislow, S. D. (2004). Florida's pension election: from DB to DC and back. Journal of Risk and Insurance, 71(3), 381-404.
- 4. Horneff, W. J., Maurer, R. H., Mitchell, O. S., & Dus, I. (2008). Following the rules: Integrating asset allocation and annuitization in retirement portfolios. Insurance: Mathematics and Economics, 42(1), 396-408.
- 5. Bernard, C.; Le Courtois, B.: Asset Risk Management of Participating Contracts, *Asia-Pacific Journal of Risk and Insurance*, Vol. 6, No. 2, pp. 1-23, 2012.
- 6. Jensen, B. A., & Nielsen, J. A. (2016). **How suboptimal are linear sharing rules?**, Annals of Finance, 12(2), 221-243.
- 7. Gatzert, N. (2017). An analysis of transaction costs in participating life insurance
- 8. Hurd, M. D. (1989). **Mortality risk and bequests**. Econometrica: Journal of the econometric society, 779-813.

### Registration

If you are interested, use the following web-page for registration:

http://econ.mathematik.uni-ulm.de:3838/semapps/stud\_en/

You can submit your preferences from Saturday, **February 3<sup>th</sup> 2018 until** Saturday, **February 10<sup>th</sup> 2018** to Nils Sørensen.

A preliminary seminar meeting will take place on February, 14<sup>th</sup> 2018, 9 a.m., at the Institute of Insurance Science (room 1.69, HeHo 20).

### **Further information**

If you have any questions, please contact

• Nils Sørensen (email: nils.sorensen@uni-ulm.de)