

[April 20 und 21. 2012 in Bendorf \(Rhein\)](#)

The following presentations were held and discussed in Bendorf (Rhine) on April 20 and 21, 2012:

## **1. Optimal Nonlinear Pricing in a Two-Sided Trade Show Market**

*Prof. Dr. Karen Gedenk, University of Hamburg*

Media companies like newspaper publishers and trade show organizers face two key challenges in their pricing decisions. First, they operate in two-sided markets and must optimize prices on both sides of the market simultaneously. Second, their customers' usage quantity depends strongly on price, so that firms can benefit from nonlinear pricing. The authors develop the first decision support system for nonlinear pricing in a two-sided market. They do so in the context of a trade show company which sells booth space to exhibitors and tickets to visitors. In online surveys they measure the willingness to pay of the two customer groups. They estimate willingness-to-pay functions for segments of customers and determine optimal prices for different tariffs. Results indicate that moving from linear to nonlinear tariffs increases profit contribution substantively. Due to the demand interrelations between exhibitors and visitors, the trade show organizer should charge relatively high prices to exhibitors and generate most of its revenue on that side of the market. In addition, this study considers the case of a publically owned trade show organizer who is interested not only in the direct profit contribution from the show but also in indirect effects from attracting many customers to the show's site.

## **2. Entrepreneurial Spin-Offs, R&D, and Technology Choice**

*Prof. Dr. Thomas Gehrig, University of Vienna*

The paper provides a framework to rationalize explain competitive spin-offs, a feature that spin-offs turn into (fierce) competitors of the mother company. The competitive spin-off typically results from conflicting views about the value of specific innovations in environments with asymmetric information about the potential quality of research ideas. While the parent company might generally prefer broader innovations, highly successful innovators of specific technologies might prefer to spin-off and market their innovation independently. As a side result our theory helps to characterize competitive spin-offs as a feature of research intensive industries. Whenever they occur they tend to be successful with respect to the mother firm. Moreover, they tend to be more profitable than de-novo entry into the market.

### **3. Optimal Incentive Contracts under Moral Hazard When the Agent is Free to Leave**

*Prof. Dr. Andreas Roider, University of Regensburg*

We characterize optimal incentive contracts in a moral hazard framework extended in two directions. First, after effort provision, the agent is free to leave and pursue some ex-post outside option. Second, the value of this outside option is increasing in effort, and hence endogenous. Optimal contracts may entail properties such as inducing first-best effort and surplus, or non-responsiveness with respect to changes in verifiable parameters. Moreover, while always socially inefficient, separation might occur in equilibrium. Except for the latter, these findings are robust to renegotiation. When the outside option is exogenous instead, the standard results obtain.

### **4. Multiple-option Spare Parts Procurement after End-of-Production**

*Prof. Dr. Karl Inderfurth, University of Magdeburg*

Inventory management of spare parts plays a key role in providing adequate after-sales service. From an OEM's perspective, managing a spare parts supply chain is particularly challenging for two main reasons. Firstly, even on the OEM's aggregate level demands for spare parts are characterized by both time-dependencies and considerable uncertainty. Secondly, decreasing product life cycles along with long service periods steadily increase the number of products which are no longer produced, but for which spare parts must be provided. For this case, we present a model to coordinate three main procurement options for spare part acquisition, namely a final order placed at the end of regular production of the parent product, extra production, and remanufacturing. The modeling assumptions cover the problem background found in the automotive industry. Since coordinating all three options yields a complicated stochastic dynamic decision problem, we develop an advanced heuristic based upon a quite simple but effective order-up-to decision rule that can easily be applied to practical problems. A comparison with simple decision rules adapted from practice provides evidence that the heuristic helps to exploit major potentials for cost improvement.