

13th ISIR Summer School 2017 Vienna, August 21-25, 2017

Werner Jammerneegg & Patricia Rogetzer

The 13th ISIR Summer School was hosted by WU Vienna University of Economics and Business from Monday, August 21st to Friday, August 25th. The central focus of that week was “Competitive Advantage through Resource Efficiency”. In a group of 15 senior researchers and 18 Ph.D. students there were keynotes and presentations on various aspects of inventory research from a conceptual, empirical, and modelling perspective. For each presentation of a Ph.D. student two other participants of the summer school, namely one Ph.D. student and one senior researcher, acted as main discussants and provided detailed feedback to the presenter. Each of the presentations was followed by numerous questions from the audience and fruitful discussions that continued throughout the coffee breaks. The summer school was complemented by an interesting exchange of experiences with colleagues from companies in the PET industry.



Figure 1: Participants of the 13th Summer School at WU Vienna

After welcoming the participants by Dr. Johannes Fichtinger and Professor Werner Jammerneegg from WU (local organizers) and the executive ISIR vice-president, Professor Attila Chikán from Corvinus University, the summer school started its official academic program on Monday morning with two students' presentations in the area of sustainability, resource efficiency (Patricia Rogetzer, WU Vienna) and food supply chains (Marjolein Buisman, Wageningen UR) followed by one keynote by Professor Henk Zijm from the University of Twente on “Industrial symbiosis networks”. Monday afternoon we had a keynote presentation by Professor Steffen Klosterhalfen from University of Luxembourg addressing the topic of “Incorporating expediting into the guaranteed-service model for inventory optimization in supply networks” and three student presentations by Sebastian Malicki from Technical University Munich, Stef Lemmens from KU Leuven and Lina Johansson from Lund University on mathematical inventory control models. Monday evening ended with welcome drinks and nibbles at the Library Café at the WU Campus.



Figure 2: Welcome note by Johannes Fichtinger at the ISIR summer school

On Tuesday, the second day of the summer school, in his keynote presentation Professor Mohammad Ali from Coventry University addressed the topic “Bridging forecasting with inventory research”. Before the lunch break there were three student presentations on the topic “Forecasting for inventory management” by Thanos Goltos (Cardiff University), Dennis Prak (University of Groningen) and Sha Zhu (Erasmus University Rotterdam). Tuesday afternoon three Ph.D. students, Christoph Rippe (Otto-von-Guericke-University Magdeburg), Gabi Hanukov (Bar-Ilan University) and Claire Chan (WU Vienna), presented mathematical models for inventory control. In an editor’s session Professor Ruud Teunter (University of Groningen) provided useful insights and learning from managing the reviewing process of a scientific journal. By promoting an open discussion between the participants, the current president of ISIR shared his personal opinion regarding journal reviews and gave helpful advice for publishing to the audience. A group of Ph.D. students spent the evening at Schweizerhaus, a Viennese restaurant in the Prater, where they enjoyed traditional pork knuckles and beer.

Wednesday was dedicated to company visits. We first visited ALPLA, a company producing plastic packaging like bottles, caps and injection-molded parts, preforms and tubes for their customers. Employees of ALPLA first provided us with insights into their production facilities followed by an interesting presentation by Christian Reiter, head of HR Central Eastern Europe at ALPLA, focusing on resource efficiency aspects. After a joint lunch at Wirtshaus Müllendorf and an introductory presentation on bottle-to-bottle recycling by the general manager of PET to PET, Christian Strasser, we also had a facility visit there.



Figure 3: Excursion to ALPLA with the participants of the ISIR summer school

Thursday morning talks were dedicated to the topic of inventory and manufacturing modelling. The Ph.D. students Karen Moons (KU Leuven) and Maryam Nouri (University of Mannheim) presented their research. Professor Zolt Matyusz (Corvinus University of Budapest) and Professor Gudrun Kiesmüller (Otto-von-Guericke-Universität Magdeburg) completed the morning sessions by insights into their current research topics. Three Ph.D. students started the talks on Thursday afternoon with inventory management topics in the areas of additive manufacturing (Maximilian Kunovjanek, Alpen-Adria-Universität Klagenfurt), commodity supply chains (Péter István Borbás, Corvinus University Budapest) and advanced inventory management models (Thomas Wurzer, Alpen-Adria-Universität Klagenfurt). The afternoon talks were enriched by a presentation of Professor Attila Chikán on firm management's contribution to macroeconomic inventory formation. The summer school dinner with friendly support of the City of Vienna was held at a traditional Viennese Heurigen. While most of the seniors called it a day after that dinner, the junior researchers continued the night in the city center of Vienna.

On Friday morning, the last tutorial of this summer school was given by Professor Yigal Gerchak from Tel Aviv University on "Partial Inventory Pooling with Allocation according to Contributions". In addition, two presentations of Ph.D. students were scheduled. Nils Knofius (University of Twente) and Julia Zimmermann (Otto-von-Guericke-Universität Magdeburg) presented research ideas on mathematical models for inventory control.

The summer school offered a variety of research topics on applications in inventory management ranging from spare parts inventory planning, commodity supply chains, additive manufacturing to forecast uncertainty and the participants presented different research methodologies (literature reviews, case studies, analytical and empirical methods). The multitude of nationalities (Hungary, The Netherlands, United Kingdom, USA, Sweden, Germany, Luxembourg, Belgium, Israel and Austria) of the participants was outstanding and provided opportunities to get in touch with each other. The summer school proved to be extremely valuable beyond mere academic purposes. Amongst others, Thursday's dinner and other informal evening events provided room for extended conversations and possibilities to meet old and new friends and colleagues.

On behalf of the organizing committee we hope that the participants enjoyed being part of the ISIR summer school and we look forward to meeting all of you soon again at other conferences like the next ISIR Symposium 2018 in Budapest and stay connected.

When looking back we always want to remember our colleague and friend, Dr. Johannes Fichtinger, the chairman of the ISIR summer school 2017, who left us forever, way too early, on September 1st in the age of 41 years. Our thoughts are with his family, especially with his wife Dr. Emel Arikan and their five-year-old son Serkan.