Eulogy for Gunter Bolch

On Thursday, May 29, 2008 when I was in Tashkent in Uzbekistan, I received the sad news that Gunter Bolch had lost the long battle with his illness at a relatively young age. This tragic news immediately triggered fond memories of our association spanning the last 30 years.

I first met Gunter Bolch in May 1979, though it seems like yesterday to me. At that time, I was writing a pre-master degree thesis under his guidance. He had just had come back from Rio de Janeiro, where he had spent his sabbatical for more than two years.

In our first meeting, he introduced me to his beloved subject on queueing networks, which was then to become an important part of my professional research for the next decade. Apart from academic discussions, he also shared his cultural and social views with me. Our talks often ran into several hours, and ranged from topics of research interest to general experiences in life. He taught me how to conduct research and produce high quality results. My interaction with him spurred me on to take his classes on queueing theory and process automation. It was great fun and a rewarding experience to write a textbook together, which was published in 1982. He was very dedicated to his teaching, research and overall to his profession. He advised numerous students who saw him as a father, mentor and advisor.
Gunter, his spouse Monika and his children Jessica and Tobias were always like a family to me. Gunter was the best man in my wedding in 1982. Gunter and Monika were at the Nuremberg airport very early morning at 6 a.m. on February 1, 1985 when I was immigrating to United States. Though we pursued our careers in different continents, Gunter was always there for me when I needed him. We visited each other often, and every time I visited Erlangen, I always received a very warm welcome from them.

The last time I saw Gunter was during his retirement party in March 2006. He was very happy that all of his former students and colleagues celebrated this event with him. His stories and the collection of photos that he shared with us during his party vividly portrayed his love and enthusiasm for Brazil. In fact, the theme of the party was totally based on the culture of Brazil, including the food, music, and decorations. He looked forward to this retirement so that he would have more opportunity to enjoy his hobbies, spend time with his grandchildren and also continue his research. Unfortunately, his plans could not be realized in their entirety due to his unexpected illness.

I have personally never met anybody like Gunter, who had a saint-like approach to life: he was not only always positive about himself but always had positive thoughts about the events in his life, and for the people around him. He had a very calm personality and looked forward to life with interest and enthusiasm.

I thank Professors Fridolin Hofmann, Wolfgang Schröder-Preikschat and Dr. Franz Wurm for their eulogies for remembering Gunter Bolch. My special thanks go to Professor Hermann de Meer and Patrick Wüchner for helping me to realize my idea of having a special issue for immortalizing the contributions of Gunter Bolch to the scientific community.

Gunter Bolch will be dearly missed and will be remembered forever by all of us. He left a mark in our lives with his lovely wife Monika, his wonderful children, beautiful grandchildren, successful students, excellent textbooks, several research contributions, and above all, with his outstanding positive personality.

Prof. Dr. Ian Akyildiz
Atlanta, March 18, 2009
In Memory of Dr. Gunter Bolch

Gunter Bolch was born on December 26, 1940 and raised in the Swabian town of Westhausen-Reichenbach near Aalen. He then moved to Karlsruhe and Berlin to study telecommunications engineering, specializing in information processing. Holding a position as a research assistant at the University of Karlsruhe at the Institute of Process Control, he received his PhD in 1973 for his dissertation "Identifikation linearer Systeme durch Anwendung von Momentenmethoden" in the field of Control Theory. In the same year, his career took him to the Friedrich-Alexander University in Erlangen as Akademischer Rat at the Department of Operating Systems, which had been founded only eight months earlier by Prof. em. Dr. Fridolin Hofmann. In 1982, Gunter Bolch assumed leadership of the research group for performance evaluation and process control, which under his guidance attained international recognition during the following years. He retired in 2006 as Akademischer Direktor, but continued to maintain close connections to the department.

Over the years, Gunter Bolch's teaching and research activities in Computer Science took him to numerous scientific institutions all over the world. He was a guest professor at the Catholic University in Rio de Janeiro (PUC) for two years. In the course of his research, he also spent time in the US, Hungary, the former USSR, and Berlin – the city that was particularly close to his heart. The research resulted in more than 130 publications and seven books.

His activities at PUC were not limited to purely scientific aspects. Gunter Bolch learned to love Brazil and its people, which was reflected in his life-long commitment to Brasilienhilfe e. V. It was this commitment that made him such a special person and is just one example of his willingness to help others. In times when for many people life seems to be too stressful and superficial, people like Gunter Bolch are needed more than ever. He always remained calm, even in difficult situations, and was modest about his achievements. He drew the necessary strength from his family, his large circle of friends, and, last but not least, from Jazz music.

Gunter Bolch died on May 29, 2008 in Erlangen, after a serious illness. Sadly, he was not able to enjoy his retirement for very long. He was highly respected by his superiors, colleagues, staff, and students not only for his competence, but also for his friendly nature. We will always remember him, and our sympathies are with his family at this time.

In the name of the department staff,

Prof. Dr. Wolfgang Schröder-Preikschat
Prof. em. Dr. Fridolin Hofmann

(Current and former heads of department)
**Obituary**

Gunter Bolch was a valued colleague and a good friend of mine for more than thirty years. As I spent quite a lot of time with him at work as well as off work, I think I got to know him quite well.

Apart from his technical expertise, he was quite knowledgeable about a number of subjects. Among other things he was interested in literature, history and Jazz music and it was always a pleasure to hear him talk about the life and times of the poet Hermann Hesse.

Particular mention must be made of his environmental awareness. He had a condensing oil boiler installed in his house, years ago, when the responsible authorities still had to be convinced of its value and, of course, a solar system and photovoltaics followed soon after.

His social commitment was another thing dear to his heart. For many years, he was active for the Brasilien-Hilfe e. V. (help for Brazil) and he always had the courage to stand up for his beliefs and fight for the needs of minorities.

Last but not least, he always tried his best to keep in contact with friends and colleagues, past and present, for whom he always had an open ear. A fact mirrored in the number of people from all over the world who came to celebrate with him when he retired in March 2006.

Most of all, however, I will miss him as an always brilliant and often amusing conversationalist.

Dr.-Ing. Franz X. Wurm

_(Former colleague and close friend)_

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**Editorial**

I am grateful for this opportunity to pay tribute to my dear friend and life-long mentor Dr. Gunter Bolch as a co-editor of this special issue in his memory. We were not only sharing common academic interests and writing scholarly books together but we were also sharing passions for such diverse activities as travelling and foreign cultures, cross-country skiing, or Jazz music. Gunter was very open minded, a beautifully moderate person, and a friend in its truest meaning. This special issue, however, is devoted to his academic passion of Performance Modeling, in general, and Queueing Networks, in particular. He has not only co-authored scholarly written books that have widely been cited and have gained world-wide acknowledgement, but many colleagues have taken pride in cooperation and joint publications
with him during his overly productive life. Likewise, many of his students were motivated by his academic and personal spirit and followed up contributing in similar research areas.

This special issue provides a collection of original contributions by former students of his and colleagues who have cooperated with him. While the contributions were solicited by invitation based on the relationship at least one author had with Gunter, all papers were thoroughly reviewed by at least three international reviewers each and subsequently carefully revised by the authors. As a result, we have been able to collect ten quality-assured papers as a witness to Gunter’s productive academic life and in memory of his achievements.

Accordingly, the focus of the presented papers is fairly wide-spread in the field of Performance Modeling and reaches from application-oriented topics (e.g., HSDPA Mobile Systems, Cognitive Radio Networks, Automotive CAN Communication) to more theoretical essays (e.g., Moments-based Analysis, Non-ergodic Jackson Networks). Among all the contributions, we are especially pleased of having been able to secure two papers on particular Performance Modeling tools, MOSEL-2 and WinPEPSY, that emerged out of the research group Gunter was directing. As such, these papers provide very characteristic documents for Gunter’s achievements in terms of practical work. Tool development has always complemented his algorithmic work as documented in his most well-known book on Queueing Networks and Markov Chains, published by John Wiley, 2nd Ed. 2006.

Finally, we want to thank the authors for their high-quality contributions to this special issue, as well as the following reviewers and shepherds for their valuable endeavors during the tight review and revision process: Khalid Al-Begain, Christopher Auer, Peter Bazan, Freimut Brenner, Hans Daduna, Falko Dressler, Alexander N. Dudin, Lassaad Essafi, Andreas Fischer, Reinhard German, Poul E. Heegaard, Armin Heindl, Dong-Seong Kim, Ulrich Klehmet, Daniel Lüdtke, Bruno Müller-Clostermann, Andreas Pillekeit, Johann Schuster, János Sztrik, Miklós Telek, Dietmar Tutsch, and Bernd E. Wolfinger.

Our special thanks go to ComNet Editor-in-Chief Ian Akyildiz, who initiated this special issue and provided us with generous space and opportunity to realize it, and to ComNet Journal Manager Mary Lynn van Dijk for her invaluable and patient assistance.

Prof. Dr.-Ing. Hermann de Meer
Dipl.-Inf. Patrick Wüchner
(Guest Editors)