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# Protocols for High Speed Networks

7th IFIP/IEEE International Workshop, PfHSN 2002  
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Proceedings



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## Series Editors

Gerhard Goos, Karlsruhe University, Germany  
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## Volume Editors

Georg Carle  
Fraunhofer Institut FOKUS  
Kaiserin-Augusta-Allee 31, 10589 Berlin, Germany  
E-mail: carle@fokus.gmd.de

Martina Zitterbart  
University of Karlsruhe  
Faculty of Computer Science, Institute of Telematics  
Zirkel 2, 76128 Karlsruhe, Germany  
E-mail: zit@tm.uka.de

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## Preface

This workshop on “Protocols for High-Speed Networks” is the seventh in a successful series of international workshops, well known for their small and focused target audience, that provide a sound basis for intensive discussions of high-quality and timely research work.

The location of the workshop has alternated between Europe and the United States, at venues not only worth visiting for the workshop, but also for the distinct impressions they leave on the participants. The first workshop was held in 1989 in Zurich. Subsequently the workshop was moved to Palo Alto (1990), Stockholm (1993), Vancouver (1994), Sophia-Antipolis/Nice (1996), and Salem (1999). In 2002, the workshop was hosted in Berlin, the capital of Germany.

PfHSN is a workshop providing an international forum that focuses on issues related to high-speed networking, such as protocols, implementation techniques, router design, network processors and the like. Although the topics have shifted during the last couple of years, for example, from parallel protocol implementations to network processors, it could be observed that high speed remains a very important issue with respect to future networking. Traditionally, PfHSN is a relatively focused and small workshop with an audience of about 60 participants. The workshop is known for lively discussions and very active participation of the attendees. A significant component of the workshop is the institution of so-called Working Sessions chaired by distinguished researchers focusing on topical issues of the day. The Working Sessions, introduced in 1996 by Christophe Diot and Wallid Dabbous, have proved to be very successful, and they contribute considerably to making PfHSN a true “workshop.”

This year, the program committee had to be once again rather selective, accepting only 14 out of 54 submissions as full papers. Working sessions on extremely timely issues, e.g., High-Speed Mobile Wireless, complemented the program. In addition, the workshop featured a keynote speech which gave an operator’s viewpoint on high-speed networking, and an invited talk bringing a manufacturer’s viewpoint. In honor of the large number of good submissions and to allow for the presentation of new and innovative work, the program was complemented by a set of six short papers and a panel session.

High-speed networking has changed enormously during the thirteen years covered by the workshop. Technologies such as ATM have moved into the spotlight and out again. What was once at the forefront of technology and deployed only in niches has become a commodity, with widespread availability of commercial products such as Gigabit Ethernet. At the same time, many issues identified by research to be important a decade ago have proven to be very timely today.

## VIII

While this year's papers give answers to many important questions, they also show that there is still a lot of room for additional work in the future.

March 2002

Georg Carle, Martina Zitterbart

# Organization

The Seventh International Workshop on Protocols for High-Speed Networks (PfHSN 2002), held in Berlin, Germany from Monday, April 22 to Wednesday, April 24, 2002, was jointly organized by the Fraunhofer Institute FOKUS and the Institute of Telematics, University of Karlsruhe. It was sponsored by IFIP WG6.2, the Working Group on Network and Internetwork Architecture. Technical co-sponsorship was provided by the IEEE Communications Society Technical Committee on Gigabit Networking. The workshop was organized in cooperation with COST Action 263 – Quality of future Internet Services.

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