

Introduction

Introduction to the 2004 Meeting of the International Quantum Structures Association

The 2004 meeting of the I.Q.S.A. took place on July 17–22 in Denver, Colorado on the campus of the University of Denver. There were 85 active participants and a total of 100 people at the conference. There were 10 invited lecturers (Professors Barnum, Brooke, Dalla Chiara, Dvurecenskij, Hamhalter, Jenca, Navara, Ptak, Pulmannova, and Schroeck), each of whom gave an hour plenary talk, with one exception. With N.S.F. Grant 0406928, 12 students and young researchers were partially supported, and which also partially supported six of the plenary speakers. Each of the plenary talks was followed by six talks of 35 minutes, split between two sessions. Of these papers, 36 will appear in this and the next issue.

The conference was in honor of two people:

- (1) Günter Bruns, Professor of mathematics at McMaster University in Hamilton, Canada: He was born on March 25, 1928, in Oldenberg, Germany. He received his Dr. Rer. Nat. from the Free University of Berlin in 1956, and went to McMaster in 1961. His work lay in the intersection of ordered structures, algebra, and topology. He generated a direct path to the equivalence of filter and Moore-Smith approach to convergence, developed much of the core theory of what came to be known as sober spaces and spatial locales, gave a categorical characterization of the MacNeille completion, and a description of the injectives in the category of distributive lattices. He, with Kalmbach, developed the basic theory of sub-varieties of OMLs. With sub-varieties of modular ortholattices, he formulated what is now called “Bruns’ Conjecture.” In OMLs, he developed many basic facts about free OMLs, gave a key point (the “one-point extension”) that later led to the proof that every OML can be embedded in an atomic OML. He also gave a solution to the free word problem in ortholattices and gave the essentials about OMLs that have only finitely many maximal Boolean subalgebras. Later, with Greechie, he extended these results and applied them to provide much of what is known about block-finite and commutator-finite OMLs. He made an influential contribution to the completion of



From the top left: John Harding, Petr Vojtechovsky, Helmut Fink, Teiko Heinonen, Eva Drobná, Anatolij Dvurecenskij, René Mayet, Michael Cifone, Tracy Lupher, Robert Bishop, Jan Slawianowski, Fred Kronz, Frank Schroeck, Gejza Jenca, Lev Levitin, Andrej Khrennikov, Jan Paseka, Howard Barnum, Costel Rotundu, Tim Hannan, Richard Greechie, Josef Tkadlec, Zdenka Riecanová, Matthew Leifer, Pekka Lahti, William Kallfelz, Jan Hamhalter, Emanuel Haven, Pavel Pták, George Svetlichny, Christian de Ronde, Ferdinand Chovanec, Bart D’Hooghe, Werner Stulpe, Charles Holland, Adam Skalski, Jean-Claude Carrega, Stanislaw Goldstein, Paula Kemp, Cyndee Strawther, Dexter Strawther, Gregory Duane, Sylvia Pulmannová. *From the bottom left:* Annamaria Bretz (wife of Gabor Hofer-Szabo), Arlette Mayet-Ippolito, Melissa Butler, Roman Fric, Mark Shaw, Paula Gudder, Stanley Gudder, Guoquan (Tammy) Zhang, Sonja Smets, Jaroslaw Pykacz, Martin Ziegler, Khaled Al-Agha, Michael Roddy, Guiseppina Barbieri, Maria Jureckova, Danielle Chevalier, Georges Chevalier. *Not pictured:* Sven Aerts and family, the rest of the Al-Agha family, Alvaro Arias, Mark Balas, Richard Ball, Olivier Brunet, Bob Coecke, Thurlow (Tim) Cook, Dan Daly (photographer), Anna De Simone, Armond Duwell, David Foulis, Hyla Foulis, Karl Gustafson, James Hagler, Loren Haskins, Gabor Hofer-Szabo, Boris Ischi, Bruce Legan, Roberto Leporini, Andrzej Luczak, Jocelyne Marbeau, Philippe Martin, Hideo Nagahashi, Aditya Nagrath, Mirko Navara, Leopoldo Roman, Janet Schroeck, Derek Smith, Alexander Wilce.

OMLs in a paper with Greechie, Harding, and Roddy. With Roddy, he developed the theory of projectivity for OMLs. He and Harding examined the amalgamation problem property and surjectivity of epimorphisms for varieties of OMLs. He, with Harding, was working on questions related

to completions shortly before his death on December 23, 2002. And this is only a small part of his work. Günter will be deeply missed.

- (2) Stanley Gudder, who is Professor of mathematics and John Evans Professor at the University of Denver, on the occasion of his 67th birthday. Dr. Gudder has published extensively (so far about 200 papers, and a few books) and deeply in a variety of fields over the past 40 years. All his papers are closely related to (mathematical) physics and are a pleasure to read. He was in addition, President of the I.Q.S.A. for 2002–2004.

It was a pleasure to have had all of you at the University of Denver.

Franklin E. Schroeck
Chairman of I.Q.S.A. 2004
and Guest Editor of the Proceedings