Bruce Williams

Bill Dwyer · John Klein · Shmuel Weinberger

Received: 17 May 2010 / Accepted: 17 May 2010 / Published online: 8 June 2010
© Springer Science+Business Media B.V. 2010

This issue of *Geometriae Dedicata* is dedicated to Bruce Williams in honor of his sixty fifth birthday.

Bruce was born on August 17, 1945 in Pittsburgh. He received his Ph.D. in Mathematics from MIT in 1972 under the direction of Frank Peterson and Dennis Sullivan, with thesis, *Classification of $(s-1)$ -Connected $(2s+1)$ -Poincaré Complexes and Manifolds*.

Bruce's early work focused on embeddings and especially on classifications of thickenings and Poincaré embeddings. Some of the impact of this work is visible in the survey [1] of modern embedding theory.

B. Dwyer
Department of Mathematics, University of Notre Dame, Notre Dame, IN 46556, USA

J. Klein
Department of Mathematics, College of Liberal Arts and Sciences, Wayne State University,
Detroit, MI 48202, USA

S. Weinberger (✉)
Department of Mathematics, University of Chicago, Chicago, IL 60637-1514, USA
e-mail: shmuel@math.uchicago.edu

He subsequently moved on to surgery theory. This period has several high points (all with Larry Taylor, and some with other collaborators) including a treatment of local surgery, the analysis of the significance of the assembly map for computing structure sets, and a quite complete analysis of that map for finite fundamental groups (with Hambleton and Milgram).

The next period for Bruce included two directions: the larger is his work on bundles of topological manifolds (largely with Michael Weiss) and pseudoisotopy theory and the other is his work (with Bruce Hughes, and Taylor) on spaces of approximate fibrations and their application.

This deep work required the marriage of two unwilling partners, algebraic K-theory and surgery, and a suitable large residence for them had to be built. These works have had significant interaction with higher algebraic K-theory, with differential geometry and the theory of stratified spaces.

Bruce has directed eight Ph.D. students and has written papers with over a dozen collaborators. He has consistently been very supportive of young mathematicians, and has always been eager to listen carefully to what they have to say and to appreciate their work. Those of us fortunate enough to have him as a friend have been inspired by his energy and enthusiasm, warmed by his deep kindness, and delighted by his sense of humor. Through his ideas and his generosity with these ideas, Bruce has profoundly influenced the three of us and many other topologists as well, spanning several generations.

Reference

1. Goodwillie, T., Klein, J., Weiss, M.: Spaces smooth embeddings, disjunction and surgery, in surveys in surgery theory vol. 2. In: Cappell, S., Ranicki, A., Rosenberg, J. (eds.) *Annals of Mathematics Series*, vol. 149, pp. 221–318. Princeton University Press, Princeton (2001)