Name R. Richard Summerhill **Home Address** 10233 Timberhill Rd Manchester, MI 48158 (734) 428-1422 rrsum@summerhill.org **Work Address** 10233 Timberhill Rd Manchester, MI 48158 (734) 428-1422 rrsum@summerhill.org Personal Date of Birth: April 20, 1944 **Current Position** Retired, Internet2; Network Consultant; Photographer Education B.A. – Monmouth College, Monmouth, IL (1962-66)M.S. - University of Iowa, Iowa City, IA (1966-67)Ph.D. - University of Iowa, Iowa City, IA (1967-69)**Work Experience** 2009-**Network Consulting** Rick Summerhill Photography 2007-2009 Chief Technology Officer, Internet2 The Internet2 Network Design The Dynamic Circuit Network The GENI Project for Internet2 2004-2007 Director, Network Research, Architecture, and Technologies, Internet2 Project Director of the HOPI project Design and Implementation of the MAN LAN Exchange Point Design and Implementation of the Abilene Observatory 2002-2004 Associate Director, Backbone Network Infrastructure, Internet2 Management of the Abilene Network 1998-2002 Executive Director, Great Plains Network Design and implementation of the Great Plains regional network 1997-1998 Network Administrator, University of Kansas Network Design and vBNS Connectivity 1996-1998 Network Administrator, KanREN Network Design and Administration 1996-1997 Faculty, Department of Mathematics, Kansas State University Associate Professor and Administration of Super Computer Facilities Split Appointment with KanREN Assistant Director, Computing and Network Services, Kansas State University 1989-1996 Principle Architect of Campus Data Network Design and Implementation of Campus Unix System

1972-1989 Faculty, Department of Mathematics, Kansas State University 1985-1989, Associate Professor 1981-1985, Department Head 1979-1981, Associate Professor 1972-1979, Assistant Professor 1970-1972 Research Assistant, School of Mathematics, Institute for Advanced Study Research Assistant to Deane Montgomery 1969-1970 Faculty, Department of Mathematics, University of Missouri Assistant Professor, Department of Mathematics 1966-1969 NSF Traineeship, University of Iowa **Related Experience** 2001-2002 Chair, Executive Committee, The Quilt 1998-2002 Chair, Abilene Technical Advisory Committee 1991-1996 KanREN Executive Committee Original Participant in KanREN 1995-1996 Private Consultant, Wide Area Network Designs Network Design and Implementation 1977-1987 Visiting Lecturer, The American Mathematical Association AMA Visiting Lecture Program Honorary and Association of Computing Machinery Professional Sigma Xi Societies Association of Members of the Institute for Advanced Study Usenix **Honors** AMA Visiting Lecture Program, 1977-87 Finalist, Outstanding Teacher Award, Kansas State University, 1978-79 Mathematical Tree-like continua and cellularity, Proc. Amer. Math. Soc., 26 (1970), 201-205 **Publications** Unknotting cones in the topological category. Pacific Journal of Mathematics, 40 (1972), 221-228 Pseudo-boundaries and pseudo-interiors in euclidean spaces and topological manifolds, Bull. Amer. Math. Soc. 78 (1972), 1009-1014 (with Ross Geoghegan) Concerning the shapes of finite-dimensional compacta, Trans. Amer. Math. Soc., **193** (1973), 281-292 (with Ross Geoghegan) General position for closed subsets of euclidean space, General Topology and Its Applications, 3 (1973), 339-345 Pseudo-boundaries and pseudo-interiors in euclidean spaces and topological

Geoghegan)

manifolds, Trans. Amer. Math. Soc., 194 (1974), 141-165 (with Ross

Finite-dimensional spaces having many of the topological properties of separable Hilbert Space  $I_2$ , Bull. Polon. Acad. Sci., Serie des sciences, math., astr., et phys., 22 (1974), 949-954 (with Ross Geoghegan)

A characterization of the connectivity of a manifold in terms of large open cells, Proc. Amer. Math. Soc., **45** (1974), 285-290

### Network Publications

Dynamic provisioning of LightPath services for radio astronomy applications, (With J. Sobieski, T. Lehman, C. Ruszczyk, B. Jabbari A. Whitney), The International Journal of Grid Computing (FGCS), **22/8**, October, 2006.

## Mathematics Reviewing and Refereeing

Mathematica Reviews
Zentralblatt fur Mathematik
Transactions of the American Mathematical Society
Fundamenta Mathematica

## Mathematics Invited Addresses

University of Wisconsin at Parkside, 1984
Marquette University, 1984
Grinnell College, 1983
Marymount College, 1983
Kansas State University, 1975
University of Missouri, 1972
Kansas State University, 1971
Institute for Advanced Study, 1970
University of Missouri, 1969
Western Michigan University, 1969

# Mathematics Courses Taught

Calculus I, II, III – Coordinator and Lecturer
College Algebra
Elementary Applied Mathematics
Series and Differential Equations
Elementary Topology
Set Theory and Logic
General Topology
Algebraic Topology
Topics in Topology
Research in Mathematics

#### Networking Presentations

Available on Request

#### References

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George Strecker, Professor Emeritus Department of Mathematics, Kansas State University (785) 532-6750 strecker@ksu.edu

#### Interests

Networking
Computing and Operating System Design
Geometric Topology
Numerical Analysis
Photography
Woodworking
Bicycling
Labrador Retrievers
Golf

#### Bio

Dr. Summerhill retired as Chief Technology Officer for Internet2 on June 19, 2009. He is now involved with network consulting, and also works as a photographer for Rick Summerhill Photography.

As Chief Technology Officer for Internet2, Dr. Summerhill was responsible for leading the technology development efforts within the Internet2 community. His duties included providing technology vision for the community and he served as the focal point for such diverse areas as dynamic circuit services and middleware. Rick's team also provided specific support for the network research area. In his previous position as Director of Network Research, Architecture and Technologies for Internet2, Rick had engineering responsibility for the Abilene network and led the Internet2 Hybrid Optical and Packet Infrastructure (HOPI) project. Prior to joining Internet2 in December of 2002, Rick served as the executive director of the Great Plains Network, an advanced regional network centered in Kansas City, Missouri. He has been associated with advanced networking at the campus, state, regional, and national levels for the last twenty years. Prior to network engineering, he served on the research faculty in Mathematics at Kansas State University. Rick attended Monmouth College where he received a B.S. in Mathematics and Physics and University of Iowa where he received a M.S. and Ph.D. in Mathematics.