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EDUCATION

North Carolina State University; Raleigh, NC
 Ph.D. Civil Engineering, May 2008
 Master of Civil Engineering, December 2005
 B.S. Civil Engineering, Valedictorian, May 2004
 B.S. Multidisciplinary Studies, Valedictorian, May 2004

EXPERIENCE

Feb 2012 - Present	Assistant Director, Highway Systems Group Institute for Transportation Research and Education NC State University; Raleigh, NC
Jan. 2008 – 2012	Senior Research Associate, Highway Systems Group Institute for Transportation Research and Education NC State University; Raleigh, NC
2004 – 2007	Graduate Research and Teaching Assistant Institute for Transportation Research and Education NC State University; Raleigh, NC
Summer 2006	Engineering Intern, Transportation Planning and Operations Kimley-Horn & Associates; Raleigh, NC
Summer 2005	Research Assistant , Pedestrian Safety Highway Safety Research Center, Chapel Hill, NC
2003 – 2004	Undergraduate Research Assistant, Civil Engineering NC State University; Raleigh, NC

PEER-REVIEWED PUBLICATIONS

JOURNAL ARTICLES

Schroeder, Bastian, Seyedbehzad Aghdashi, Nagui Roupail, Xiaoyue Liu, and Yin Hai Wang. *Deterministic Approach to Managed Lane Analysis on Freeways in a Highway Capacity Manual Context*. Accepted for Publication by the Transportation Research Record: Journal of the Transportation Research Board. Expected 2012

Schroeder, Bastian, Nagui Roupail, Katy Salamati, and Zach Bugg. *Impact of Pedestrian Impedance on Vehicular Capacity at Multilane Roundabouts with Consideration of Crossing Treatments*. Accepted for Publication by the Transportation Research Record: Journal of the Transportation Research Board. Expected 2012

Hu, Jia, Bastian Schroeder, and Nagui Roupail. *Rationale for Incorporating Queue Discharge Flow into HCM Freeway Facility Analysis Procedure*. Accepted for Publication by the Transportation Research Record: Journal of the Transportation Research Board. Expected 2012

Thomson, Timothy, Xiaoyne Liu, Yinhai Wang, Bastian Schroeder, and Nagui Roupail. *Operational Performance and Speed-Flow Relationships for Basic Managed-Lane Segments*. Accepted for Publication by the Transportation Research Record: Journal of the Transportation Research Board. Expected 2012

Bugg, Zachary, Bastian Schroeder, and Nagui Roupail. *Guidance for Simulation-Based Modeling of Auxiliary Through Lanes*. Accepted for Publication by the Transportation Research Record: Journal of the Transportation Research Board. Expected 2012

Bugg, Zachary, Nagui Roupail, Bastian Schroeder, and Brandon Nevers. *Implementing Auxiliary Through Lanes in a Highway Capacity Analysis Context*. Accepted for Publication by the Transportation Research Record: Journal of the Transportation Research Board. Expected 2012

Xiaoyne Liu, Yinhai Wang, Bastian Schroeder, and Nagui Roupail. *Quantifying Cross-Weave Impact on Capacity Reduction for Freeway Facilities with Managed Lanes*. Accepted for Publication by the Transportation Research Record: Journal of the Transportation Research Board. Expected 2012

Katy Salamati, Bastian Schroeder, Nagui Roupail, Chris Cunningham, Yu Zhang, and David Kaber. *Simulator Study of Driver Responses to Pedestrian Treatments at Multilane Roundabouts*. Accepted for Publication by the Transportation Research Record: Journal of the Transportation Research Board. Expected 2012

Findley, Daniel, Chris Cunningham, Bastian Schroeder, Chris Vaughan, and Tyler Fowler. *Structural and Safety Investigation of Statewide Weathered Steel Beam Guardrail Performance in North Carolina*. Accepted for Publication by the Transportation Research Record: Journal of the Transportation Research Board. Expected 2012

Al-Ghandour, Majed, Bastian Schroeder, William Rasdorf, and Billy Williams. *Delay Analysis of Single-Lane Roundabout with a Slip Lane under Varying Exit Types, Experimental Balanced Traffic Volumes, and Pedestrians: Using Microsimulation*. Transportation Research Record: Journal of the Transportation Research Board. No. 2236. Pp. 92-101. Washington, D.C. 2011.

Xiaoyne Liu, Bastian Schroeder, Timothy Thomson, Yafeng Yin, Nagui Roupail, and Yinhai Wang. *Analysis on Operational Interactions Between Freeway Managed Lanes and Parallel General Purpose Lanes*, Transportation Research Record: Journal of the Transportation Research Board. No. 2262. Pp 62-73. Washington, D.C. 2011.

Majed Al-Ghandour, Bastian Schroeder, Billy Williams, and William Rasdorf. *Conflict Models for Single-Lane Roundabout Slip Lanes from Microsimulation: Development and Validation*, Transportation Research Record: Journal of the

Transportation Research Board. No. 2236. Pp 92-101. Washington, D.C. 2011

Katy Salamati, Bastian Schroeder, Nagui Roupail, Chris Cunningham, Richard Long, and Janet Barlow. *Development and Implementation of a Conflict-based Assessment of Pedestrian Safety (CAPS) to Evaluate Accessibility of Complex Intersections*, Accepted for Publication by the Transportation Research Record: Journal of the Transportation Research Board. No. 2264. Pp 148-155. Washington, D.C. 2012.

Chris Cunningham, Bastian Schroeder, Chris Vaughan, and Ronald Hughes. *Is TACT Effective in Changing Driver Behavior? Evidence from North Carolina TACT III Effort*. Accepted for Publication by the Transportation Research Record: Journal of the Transportation Research Board. In Press.

Rebecca Haley, Sarah Ott, Joseph Hummer, Robert Foyle, Chris Cunningham, Bastian Schroeder. *Operational Effects of Signalized Superstreets in North Carolina*, Transportation Research Record: Journal of the Transportation Research Board. No. 2232. Pp 72-89. Washington, D.C. 2011.

Schroeder, Bastian J. and, Nagui M. Roupail. *Event-Based Modeling of Driver Yielding Behavior at Unsignalized Crosswalks*. ASCE Journal of Transportation Engineering. American Society for Civil Engineers. No. 137, 455 (2011).

Schroeder, Bastian J. and, Nagui M. Roupail. *Mixed-Priority Pedestrian Delay Models at Single-Lane Roundabouts*. Transportation Research Record: Journal of the Transportation Research Board. No 2182. Pp129-138. Washington, D.C. 2010

Schroeder, Bastian J. and, Nagui M. Roupail. *Estimating Operational Impacts of Freeway Work Zones on Extended Facilities*. Transportation Research Record: Journal of the Transportation Research Board. No 2169. Pp. 70-80. Washington, D.C. 2010

Schroeder, Bastian J., Nagui M. Roupail and Ron G. Hughes (2009). *A Working Concept of Accessibility - Performance Measures for the Usability of Crosswalks for Pedestrians with Vision Impairments*. Transportation Research Record: Journal of the Transportation Research Board. No. 2140. pp. 103-110. Washington, D.C.

Schroeder, B.J.; N.M. Roupail, and R.G. Hughes (2008), "Toward Roundabout Accessibility – Exploring the Operational Impact of Pedestrian Signalization Options at Modern Roundabouts", *Journal of Transportation Engineering Vol. 134, No. 6*, American Society of Civil Engineers.

Schroeder, Bastian J., Nagui M. Roupail and Rob Wall (2006). *Exploratory Analysis of Crossing Difficulties for Blind and Sighted Pedestrians at Channelized Turn Lanes*. Transportation Research Record: Journal of the Transportation Research Board. No. 1956. pp. 94-102. Washington, D.C.

PROCEEDINGS

Bastian Schroeder, Soheil Sajjadi, Nagui Roupail, and Tyler Fowler. *Application and Validation of HCM2010 Freeway Facilities Methodology for Work Zone Operations*. Proceedings of the 91ST Annual Meeting of the TRB, 2012

Soheil Sajjadi, Bastian Schroeder, Nagui Rouphail, and Tyler Fowler. *A Planning-Level Approach to Estimating User Cost for Freeway Work Zones*. Proceedings of the 91ST Annual Meeting of the TRB, 2012

Tyler Fowler, Bastian Schroeder, Nagui Rouphail, and Soheil Sajjadi. *Estimating Work Zone Performance from Point Sensors: Challenges and Lessons Learned*. Proceedings of the 91ST Annual Meeting of the TRB, 2012

Bastian Schroeder and Nagui Rouphail. *Empirical Behavioral Models to Support Alternative Tools for the Analysis of Mixed-Priority Pedestrian-Vehicle Interaction in a Highway Capacity Context*. Proceedings of the 6th International Symposium on Highway Capacity and Quality of Service. Stockholm Sweden. June 2011.

Zachary Bugg, Nagui Rouphail, Bastian Schroeder, and Brandon Nevers. *Observations and Models of Auxiliary Through Lane (ATL) Use at Signalized Intersections*, Proceedings of the 90TH Annual Meeting of the TRB, 2011

Chris Cunningham, Mike Miller, Daniel Findley, Bastian Schroeder, Donald Katz, AND Robert Foyle *Economic Effects of Access Management Techniques in North Carolina*, Proceedings of the 90TH Annual Meeting of the TRB, 2011

Alston, Mike, Nagui M. Rouphail, Bastian J. Schroeder, and, Joseph E Hummer. *Simulation-Based Support for Evaluating Auxiliary Through Lanes at Signalized Intersections*. Proceedings of the 89th Annual Meeting of the TRB, 2010.

Schroeder, Bastian J., Nagui M. Rouphail and Brendan Lehan. *Observational Study of Pedestrian Behavior along a Signalized Urban Corridor*. Proceedings of the 88th Annual Meeting of the TRB, 2009.

Schroeder, Bastian J., Nagui M. Rouphail and Ron Hughes. *Exploratory Analysis of Pedestrian Signalization Treatments at One- and Two-Lane Roundabouts Using VISSIM Microsimulation*. Proceedings of the 86th Annual Meeting of the TRB, 2007.

Schroeder, Bastian J. and Nagui M. Rouphail . *A Framework for Evaluating Pedestrian-Vehicle Interactions at Unsignalized Crossing Facilities in a Microscopic Modeling Environment*. Proceedings of the 86th Annual Meeting of the Transportation Research Board. 2007

Hummer, Joseph E., Jae-Pil Moon, Bastian Schroeder, and Ram Jagannathan, *Recent Superstreet Implementation and Research*, 3rd Urban Street Symposium, Best Paper Award, Seattle, WA, June 2007

OTHER PUBLICATIONS

C. Cunningham, D. Findley, Schroeder, B., and R. Foyle. *Traffic Operational Impacts of Contemporary Multi-Pump Island Fueling Centers*. Institute of Transportation Engineers Journal. Washington, D.C. June 2011.

Findley, D.J., Cunningham, C.M., Schroeder, B.J., Vaughan, C.L., and Fowler, T.J. "Performance of Weathered Steel Guardrail in NC." North Carolina Department of Transportation. Report FHWA/NC/2011-11. May 2011. Raleigh, NC.

Schroeder, B.J., Roupail, N.M., Sajjadi, S., and Fowler, T.J. "Corridor-Based Forecasts of Work-Zone Impacts for Freeways." North Carolina Department of Transportation. Report FHWA/NC/2010-18. August 2011. Raleigh, NC.

Schroeder, B., R. Hughes, N. Roupail et al., *NCHRP Report 674: Crossing Solutions at Roundabouts and Channelized Turn Lanes for Pedestrians with Vision Impairments*. Transportation Research Board. Washington, D.C. 2011.

Schroeder, B., and N. Roupail. *Freeway Facilities Supplemental*. Highway Capacity Manual 2010, Chapter 22. Transportation Research Board. Washington, D.C. 2011.

Schroeder, B., C. Cunningham, D. Findley, and R. Foyle. *ITE Manual of Transportation Studies*. Institute of Transportation Engineers. Washington, D.C. 2010.

Schroeder, B, C. Cunningham, D. Findley, and R. Foyle. *Introduction*. Chapter 1 in ITE Manual of Transportation Studies. Institute of Transportation Engineers. Washington, D.C., 2010.

Foyle, R. and B. Schroeder. *Communicating Data to the Public*. Chapter 3 in ITE Manual of Transportation Studies. Institute of Transportation Engineers. Washington, D.C., 2010.

Schroeder, B. *Volume Studies*. Chapter 4 in ITE Manual of Transportation Studies. Institute of Transportation Engineers. Washington, D.C., 2010.

Schroeder, B. *Spot Speed Studies*. Chapter 5 in ITE Manual of Transportation Studies. Institute of Transportation Engineers. Washington, D.C., 2010.

Schroeder, B. *Freeway Studies and Managed Lanes*. Chapter 10 in ITE Manual of Transportation Studies. Institute of Transportation Engineers. Washington, D.C., 2010.

Schroeder, B. *Simulation Studies*. Chapter 11 in ITE Manual of Transportation Studies. Institute of Transportation Engineers. Washington, D.C., 2010.

Findley, D. and B. Schroeder. *Pedestrian and Bicycle Studies*. Chapter 12 in ITE Manual of Transportation Studies. Institute of Transportation Engineers. Washington, D.C., 2010.

Schroeder, B. *Public Transportation Studies*. Chapter 13 in ITE Manual of Transportation Studies. Institute of Transportation Engineers. Washington, D.C., 2010.

Schroeder, B. *Experimental Design*. Appendix A in ITE Manual of Transportation Studies. Institute of Transportation Engineers. Washington, D.C., 2010.

Schroeder, B. *Statistical Analysis*. Appendix A in ITE Manual of Transportation Studies. Institute of Transportation Engineers. Washington, D.C., 2010.

Schroeder, B., *A Behavior-Based Methodology for Evaluating Pedestrian-Vehicle Interaction at Crosswalks*, PhD Dissertation, North Carolina State University, May 2008.

Hughes, Ronald G., Bastian J. Schroeder and Thomas Fischer, *3D Visualization and*

Microsimulation Applied to the Identification and Evaluation of Geometric Solutions for Improving Visually Impaired Pedestrian Access to Roundabouts and Channelized Turn Lanes. International Symposium on 3D/4D Visualization in Transportation Denver, CO, 2006

Schroeder, Bastian J., Freight Network Models: *Assessment and Validation of Network-Based Freight Forecasting Models for North Carolina.* Appendix to NCDOT Project 'NC Truck Traffic Forecasting'. North Carolina State University. Spring 2005.

Zegeer, Charlie et. Al. *How to Design Safe Pedestrian Facilities.* UNC Chapel Hill Highway Safety Research Center. Prepared for Federal Highway Administration.

Khattak, A.J., J.R. Stone, W.E. Letchworth, B.K. Rasmussen and B.J. Schroeder *Traditional Neighborhood Development Trip Generation Study.* Prepared for NCDOT. UNC Department of City and Regional Planning and NCSU Department of Civil, Construction and Environmental Engineering. January 2004

PRESENTATIONS

Pedestrian Safety and Accessibility Considerations at Modern Roundabouts. FHWA webinar, Pedestrian Bicycle Information Center (PBIC), March 2012

Modern Roundabout Operations in VISSIM: Calibration Guidance and Evaluation of Pedestrian Crossing Treatments. PTV Users Group Meeting, New York, NY, September 2011

Empirically-Derived Guidance for Modeling Auxiliary Through Lanes (ATLs) at Signalized Intersections in VISSIM. PTV Users Group Meeting, New York, NY, September 2011

Access to uncontrolled crosswalks by individuals who have visual impairments: Roundabouts, channelized turn lanes and driver-pedestrian interactions. The Eye and the Auto Conference. Detroit, MI. September 2011

NCHRP Report 674 Overview - Crossing Solutions for Pedestrians with Vision Disabilities at Roundabouts & Channelized Turn Lanes. Webinar co-sponsored by TRB and Easter Seals Project Action, August 2011.

Freeway Facilities Methodology in HCM2010. Webinar sponsored by Institute of Transportation Engineers, ITE, July 2011.

An Overview of NCHRP Report 674. International Roundabout Conference, Carmel, IN. May 2011

A user's guide to roundabouts and channelized turn lanes. NCOMA Annual Conference, Kalamazoo, MI. September 2010

Traffic Engineering 101. NCOMA Annual Conference, Kalamazoo, MI. September 2010

The challenge of roundabout access. NCOMA Annual Conference, Kalamazoo, MI.

September 2010

Adapting VISSIM for Variant Pedestrian Behavior and Facility Modeling in a Mixed-Priority Environment. PTV America Users Group Meeting. Seattle, WA. April 2010.

Blind Pedestrian Access to Modern Roundabout. ITE Technical Conference and Exhibit. Savannah, GA. March 2010.

NCHRP Project 3-78a Update - Crossing Solutions for Pedestrians with Vision Disabilities at Roundabouts and Channelized Turn Lanes. 89th Annual Meeting of the TRB, Washington, DC, 2010

Freeway Facility Analysis in HCM2010. 89th Annual Meeting of the TRB, Washington, DC, 2010

Research Synthesis on Driver Yielding Behavior in the Context of Crossings by Pedestrians who are Blind at Complex Intersections. International Mobility Conference (IMC), Marburg, Germany. July 2009

Towards a Universal Design Approach to Accommodating the Needs of Pedestrians at Modern Roundabouts: Treatments Evaluated Under NCHRP Project 3-78a . International Mobility Conference (IMC), Marburg, Germany. July 2009

Analysis of Freeway Operations and Freeway Work-Zones in the 2010 Highway Capacity Manual. ASCE North Carolina Section Spring Technical Seminar, Greensboro, NC. May 2009

Overview of HAWK Signal and Raised Crosswalk at 2-Lane Roundabout in Golden, CO (NCHRP 3-78a), 88th Annual Meeting of the TRB, Washington, DC, 2009

Rouphail, N. and B. Schroeder, *Event based Driver Yielding and Pedestrian Gap Acceptance Models for Micro-Simulation Applications*, Traffic Simulation Workshop, Graz, Austria, 2008.

A Working Concept of Accessibility, TRB Roundabout Conference Meeting, Kansas City, MI, 2008

Yield Detection Technology for Blind Pedestrians at a Single-Lane Roundabout, TRB Roundabout Conference Meeting, Kansas City, MI, 2008

Pedestrian Access to Modern Roundabouts - Roundtable Discussion NCSITE Annual Meeting, Raleigh, NC, 2007

Accommodating Blind and Low-Vision Pedestrians at Roundabouts - Treatments to be Evaluated under NCHRP 3-78a, ITE Annual Meeting, Pittsburgh, PA, 2007

Microsimulation of Pedestrian-Vehicle Interaction - Evaluating Pedestrian Crossing Treatments for NCHRP 3-78 in VISSIM. NCSITE Midyear Meeting, Wilmington, NC 2006

Pedestrian Signals at Roundabouts? NCSITE Student-led Meeting, Greensboro, NC, 2007

Urban Containment Policies Applied to North Carolina, NCSITE Student-led Meeting, Raleigh NC, 2006

Microscopic Modeling of Blind Pedestrians at Roundabouts and Channelized Right-Turn Lanes, NCSITE Student-led Meeting, Charlotte NC, 2006

PROJECT EXPERIENCE

Work Zone Traffic Analysis & Impact Assessment (PI)
January 2012 – August 2012 | North Carolina Department of Transportation

Accelerating Roundabout Implementation in the United States, (ITRE PI)
October 2011 – April 2014 | Federal Highway Administration

SHRP2-L08: Incorporating Travel Time Reliability in the Highway Capacity Manual,
Mar 2011 – Jan. 2013 | National Academies of Science

Evaluating the Performance of Corridors with Roundabouts, NCHRP 3-100 (ITRE PI),
May 2011-December 2012 | National Academies of Science

Field Evaluation of Double Crossover Diamond Interchanges
October 2010 – October 2015 | Federal Highway Administration

Comparison of Data Collection Vehicles to Human Collection Methods,
Aug 2010 – Aug 2012 | North Carolina Department of Transportation

Performance of Weathered Steel Guardrail in NC
Aug 2010 – Mar 2011 | North Carolina Department of Transportation

Road Commission for Oakland County HAWK and RRFB Study (ITRE PI)
May 2009 - Dec. 2010 | Road Commission for Oakland County, Michigan

Corridor-Based Forecasts of Work-Zone Impacts for Freeways (PI)
Aug. 2009. – Dec. 2010 | NCDOT

ITE Manual of Transportation Studies Update (PI)
Dec. 2008 - Dec. 2009 | Institute for Transportation Engineers

Camera-Based Detection for TACT III Enforcement Evaluation Program: Ticketing Aggressive Cars and Trucks. Nov. 2009 - Oct. 2010 | NC State Highway Patrol

NCHRP 3-92: Production of the 2010 Highway Capacity Manual
September 2007 - September 2011 | National Academies of Science

NCHRP 3-96: Analysis of Managed Lanes on Freeways
April 2009 - October 2011 | National Academies of Science

NCHRP 3-98: Guidelines on the Use of Auxiliary Lanes at Signalized Intersections

February 2009 -June 2011 | National Academies of Science

NCHRP 3-78a: Crossing Solutions for Pedestrians with Vision Impairments at Roundabouts and Channelized Right Turn Lanes

2005 – 2009 | National Academies of Science

All-Weather Paint for Work Zones: Field Evaluation in North Carolina

November 2008 – September 2009 | 3M Traffic Safety Systems Division

Economic Impacts of Access Management

Aug. 2008. – Aug. 2010 | NCDOT

Traffic Operations Analysis of Level 1 Work Zones

Mar. – Aug. 2008 | NCDOT Workzone Traffic Control Unit

Pedestrian Safety Evaluation on Hillsborough Street Corridor

July 2007 – July 2008 | Southeastern Transportation Center

Traffic Operational Impacts of Contemporary Multi-Pump Island Fuel Centers July 2006

– Dec. 2007 | NCDOT

Pedestrian Access to Complex Intersections

2004 – 2010 | National Institutes of Health

TEACHING ACTIVITIES

Highway Capacity Manual 2010 – One Day Update

2010 – 2011 | NCSU Instructor

Introduction to VISSIM Microsimulation

2009 - 2010 | NCSU Instructor

VISSIM Microsimulation Advanced I - Signalized Operations

2009 - 2010 | NCSU Instructor

VISSIM Microsimulation Advanced II - Specialized Applications

2009 - 2010 | NCSU Instructor

Traffic Flow Principles at Roundabouts – Deterministic and Simulation Approaches

2010 | NCSU Lecture CE702 Traffic Flow Theory

Incremental Queue Accumulation (IQA) Methodology in HCM2010

2010 | NCSU Lecture CE706 Advanced Traffic Control

Operational and Design Aspects of Modern Roundabouts

2010 | NCSU Lecture CE706 Advanced Traffic Control

Principles of Microsimulation Trajectory Analysis

2010 | NCSU Lecture CE706 Advanced Traffic Control

CE305: Transportation Engineering

Department of Civil, Construction, and Environmental Engineering
2007 | NCSU Course Instructor

CE502: Traffic Operations

Department of Civil, Construction, and Environmental Engineering
2006 | NCSU Course Co-Instructor

SYNCHRO/SIMTRAFFIC

Institute for Transportation Research and Education
2008-2009 | NCSU Co-Instructor

OTHER ACTIVITIES

Member FHWA Project Panel: Work Zone Traffic Analysis – Applications and Decision Framework

Certified Instructor for PTV America, VISSIM Software, Expected May 2009

Member, TRB Task Force on Roundabouts (ANB-75T), 2007 – Present

Member, TRB Committee on Highway Capacity and Quality of Service (AHB-40), 2007 – Present

Member, AHB40: Traffic Simulation Applications Subcommittee, 2007 - Present

Secretary, AHB40: Research Subcommittee, 2010 - Present

Member, AHB40: Freeway and Multilane Highways Subcommittee, 2007 - Present

Chair, NCSITE Simulation and Capacity Model User Group, 2007 – Present

Member, NCSITE Traffic Engineering Council, 2007 – Present

President, NCSU ITE Student Chapter, 2004 – 2007

Member of TRB and ITE

ACADEMIC HONORS

D. Grant Mickle Award, Best Paper Award TRB, 2011

Best Paper Award, TRB Work Zone Traffic Control Committee, 2011

Best Paper Award, TRB Roundabout Task Force, 2010

Best Paper Award, Third Urban Street Symposium, 2007

NCSU Langure Research Ethics Fellow, 2007

FHWA Eisenhower Fellowship, 2006

NCSU Transportation Founders Fund (TFF) Scholarship, 2006

ENO Transportation Fellow, 2006

CTE Student of the Year Award, 2002

NCSU Civil Engineering C.R. Bramer Endowed Scholarship, 2002, 2003

Roy D. Williams Memorial Scholarship/NCSITE 2002, 2003

NCSU Summer Enrichment Grant for 'Four Worlds' Study Abroad, 2002

COLLABORATORS

M. Al-Ghandour; D.Ashmead; J. Barlow; B. Bentzen; L. Bloomberg; W. Brilon; D. Carter; M.Coelho; C. Cunningham; R. Dowling; J. Dunlop; B. Eads; K. Eccels; L. Elefteriadou; D. Findley; R. Foyle; C. Frey; D. Geruschat; K. Giese; A. Gretter; F. Gross; D. Guth; R. Hughes; J. Hummer; R. Johnson; D. Kaber; A. Khattak; D. Kim; W. Kittelson; J. Leisch; R. Long; G. List; R. Margiotta; E. Myers; B. Nevers; K. Ova; B. Ray; W. Rasdorf; L. Rodegerdts; D. Rodriguez; N. Roupail; P. Ryus; J. Schoen; A. Scott; A. Skabardonis; R. Srinivasan; H. Steyn; J. Stone; M. Vandehey; R. Wall Emerson; Y. Wang; B.Williams; C. Zegeer; J. Zegeer.