



First Annual

Geography Student Research Symposium

**Department of Geography
Texas State University | San Marcos**

23 April 2004

12:30 – 12:40 **Introduction and Welcome** Room 311
 Geography Student Research Symposium Committee

Co-Chairs: Mikaila Bell, David Viertel, Nikki Williams
 Members: Andy Ellis, Noah Hopkins, Carl Schmiedeskamp
 Faculty Advisor: Lawrence Estaville

12:45 – 1:30

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| 1.1 | Environmental Geography Research in National Parks | Room 311 |
| | Chair – Andy Ellis | |

- 12:45 Lynn Resler *Conifer Establishment Sites at the Alpine Treeline Ecotone: Glacier National Park, Montana*
- 1:00 Dawna Cerney *Use of Historical Photos to Detect Change at the Lower Treeline/Grassland Ecotone in Waterton Lakes National Park, Alberta Canada*
- 1:15 Carol Sawyer *Use of Picture Postcards to Observe 100 Years of Landscape Change in Yellowstone National Park*

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| 1.2 | Minorities, Women, and Belief Systems | Room 316 |
| | Chair – Tina Gonzales | |

- 12:45 Bernadette Marion *Minorities in Geography: A Qualitative Investigation*
- 1:00 Fenda A. Akiwumi *Indigenous People, Women, and Water*
- 1:15 David Rutherford *Global Polarization and Fundamentalist Belief Systems*

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| 1.3 | Poster Session: 12:30 – 1:30 | 3 rd Floor - Evans Liberal Arts Building |
| | Coordinator – Noah Hopkins | |

- Xuwei Chen *The Impact of Urban Land Use Change on Urban Heat Environments*
- Tina Gonzales *San Marcos Parks*
- Edris Montalvo *African-American and Latino Membership in Selected National Academic Associations, 1999-2002, and Selected Geography Departments, 2004*
- Jay Parsons *Modeling Surface Water Flow with a Time-Explicit Cellular Automaton*
- Komal Patel *Multi-Temporal Comparison of Fire-Induced Vegetation Change in West Texas*
- Melanie Reed *Missile Silo Uses in Pop Culture*

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| Charles Schultz | <i>Homeland Security Risk Assessment GIS</i> |
| Robert Stewart | <i>Austin Fire Protection</i> |
| Scott Warner | <i>Land Use Analysis of Freeman Ranch</i> |
| Nikki Williams | <i>African-American and Latino Majors in Selected Geography Departments, 1999-2002</i> |
| Guangyu Wu | <i>Seasonal Change Detection of Water Quality in the Texas Gulf Coast</i> |

1:45 – 2:30

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| 2.1 | Typhoons, Climate Change, and Dust Storms | Room 311 |
| | Chair – Aaron Ciarkowski | |

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| 1:45 | Darlene Occena-Gutierrez | <i>Philippine Typhoons: Frequency and Intensity from 1948 to 2000</i> |
| 2:00 | Jonathan Herbert | <i>The Visualization of Climate Change in Big Bend National Park</i> |
| 2:15 | Jeff Isom | <i>Climate Controls upon Dust Storm Occurrences in Iraq</i> |

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| 2.2 | Geographic Education: GIS to Virtual Reality | Room 315 |
| | Chair – Belen Garcia | |

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| 1:45 | Cathy Springer | <i>An Exploratory Study of the Nature, Process, and Effects of Virtual Field Studies</i> |
| 2:00 | Ellen Foster | <i>Recruiting and Retaining Geographers: A Look at Underrepresented Populations</i> |
| 2:15 | Xiaomin Qiu | <i>A Proposal of Research on GIS and Spatial Abilities</i> |

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| 2.3 | Geospatial Technologies and Cities | Room 316 |
| | Chair – Barry Hunter | |

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| 1:45 | David Viertel | <i>The Relationship between LIDAR Data and Socioeconomic Variables for Austin, Texas</i> |
| 2:00 | Junmei Tang | <i>Multifractal Analysis of the Relationship between Urban Road Pattern and Population Density</i> |
| 2:15 | John Meaker | <i>A New Source for Traffic Probe Data</i> |

2:45 – 3:45

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| 3.1 | GIS Solutions for Texas State | Room 311 |
| | Chair – Nikki Williams | |

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| 2:45 | Geospatial Information Technologies | <i>Campus Safety Assessment: Texas State University -San Marcos</i> |
| 3:00 | TP Solutions | <i>Parking and Traffic Problems: Where it Flows and Where it Goes</i> |
| 3:15 | Enabled Consulting Group | <i>Assessment and Modification of Campus Disability Accessibility at Texas State University-San Marcos</i> |
| 3:30 | Texas State Geosystems | <i>Arboretum Planning and Assessment of Texas State University-San Marcos</i> |

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| 3.2 | Rivers and Landscapes | Room 315 |
| | Chair – Susan Mettle | |

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| 2:45 | Susan Meckel | <i>Development in the Hays County Portion of the Plum Creek Watershed</i> |
| 3:00 | Laura Chance & Elizabeth Whitaker | <i>The Effects of Global Warming on Stream Flow and Endangered Species of the Comal River</i> |
| 3:15 | Mikaila Bell | <i>What is a Landscape?</i> |

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| 3.3 | Geographic Information Science: Models and Techniques | Room 316 |
| | Chair – Carl Schmiedeskamp | |

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| 2:45 | Xuwei Chen | <i>Agent-Based Modeling and Simulation of Evacuation Strategies</i> |
| 3:00 | Guangyu Wu | <i>Hydrological Modeling Using Remote Sensing and GIS: A Case Study in the San Marcos River Basin</i> |
| 3:15 | Shing Lin | <i>Heterogeneity and Anisotropy of Autocorrelation</i> |
| 3:30 | Derek Wu | <i>Urban Land Use Classification Using Variogram-Based Post-Classification</i> |

4:00 – 5:00

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| Plenary Session | Room 116 |
| Chair – Brock Brown | |

Richard L. Nostrand
University of Oklahoma

The Three Borders of the U.S.-Mexico Borderlands