Office phone: (309) 794-7218

JEFFREY C. STRASSER Professor

Department of Geology Augustana College 639 38th Street Rock Island, IL 61201

Office fax: (309) 794-7564 <u>JeffreyStrasser@augustana.edu</u> http://www.augustana.edu/academics/majors--areas-of-study/geology

EDUCATION

Ph.D.:	1996, Geology, Lehigh University, Bethlehem, PA
M.S.:	1990, Geology, Lehigh University, Bethlehem, PA
B.A.:	1987, Geology, Carleton College, Northfield, MN
Fieldcamp:	1987, Indiana University, Tobacco Root Mtns., MT (6-week intensive field geology course)

AREAS OF RESEARCH

- Ph.D.: Mechanisms of sediment entrainment, transport, and deposition by wet-based glaciers, focusing on processes of net basal freezing to the Matanuska Glacier, Alaska.
- M.S.: Deep-ocean sediment deposition, diagenesis, and deformation associated with convergent tectonics. Analyzed the porosity distribution of the Cascadia accretionary prism based on geophysical and borehole data and modeled fluid flow in deforming, unconsolidated sediments.
- B.A.: Fault scarp morphology on Hanaupah Canyon Alluvial Fan, Death Valley, California, and neotectonic implications.
- Other: Permafrost distribution and groundwater flow in subarctic regions (1993-1996), applications of groundpenetrating radar and shallow seismic reflection (1993-2000).

PRIMARY RESEARCH INTERESTS

Glacial geology (moraine genesis and till deposition), glaciology, geomorphology, sedimentology and stratigraphy, paleoclimatology, hydrogeology, environmental geology, permafrost and periglacial processes.

ACADEMIC POSITIONS

- 2016 present Chair of the Geology Department
- 2010 present Professor, Augustana College
- 2004 2010 Associate Professor, Augustana College
- 1996 2004 Assistant Professor, Augustana College (tenured 2002).
- 1992 Instructor for introductory geology and geomorphology course taught in the Rocky Mountains of Wyoming and Idaho. Lehigh University.
- 1990 1992: Teaching Assistant, Lehigh University. Developed and instructed laboratory exercises in undergraduate courses, including introductory geology, geomorphology, environmental geology, and sedimentology.
- 1989 1991: Teaching Assistant, Lehigh University Geological Field Camp. Assisted in routine operations of the program. Designed and instructed introductory geology laboratory and field exercises in the Rocky Mountains of Wyoming and Idaho.

RESEARCH ACTIVITIES

- Present: Studies of Midwestern geomorphology, stratigraphy, glacial till, environmental geochemistry, and shallow groundwater flow. Most of my research is currently pursued by directing varied student research projects, specifically required Senior Inquiry projects in the Geology and Environmental Studies programs.
- 1991-2002: Investigations of glacial hydrology, glaciology, sediment entrainment, transport, and deposition at the Matanuska Glacier, Alaska. Studies include analyses of tritium and stable isotopes in ice and surface waters, ice petrography, suspended sediment analyses, dye tracer tests (subglacial hydrology), and the collection of various hydrological data using Seabird Conductivity-Temperature-Depth units, Hydrolab units, Campbell data loggers, and water samplers. Collaborated with researchers from USA CRREL, Lehigh University, Michigan State, and Penn. State.
- 1995 (August and September): Research Physical Scientist, Cold Regions Research and Engineering Laboratory. Participated in glaciological and hydrological studies in Alaska. Supervisor: D.E. Lawson
- 1992-1996: Research Assistant with Lehigh University and U.S. Army Cold Regions Research and Engineering Laboratory. Research involves investigations of permafrost distribution and ground water flow, Fort Wainwright, Alaska. Investigative methods include surveys with ground penetrating radar and

electromagnetic induction interpreted with borehole drilling, geomorphologic mapping, and automated ground water flow probe use. Supervisors: D.E. Lawson and E.B. Evenson.

- 1992, 1994: Researcher, Maine Geological Survey. Investigated Quaternary deposits in northern Maine in an effort to establish a better understanding of glacial and deglacial chronology and sediment depositional dynamics along margin of the Late Wisconsinan Maine Ice Cap.
- 1987-1989: Research Assistant, Lehigh University. Investigated the porosity distribution of the Cascadia accretionary prism using geophysical techniques. Participated in two research cruises as well as dives in the *Alvin* deep submersible. Supervisor: B. Carson.

FUNDING RECORD

National Science Foundation Grants

- 2002: (OPP-0139067), "Undergraduate Research in Quaternary Geology at the Matanuska Glacier, Alaska: Research Experiences for Undergraduates." \$184,263 (3-yr REU grant), S.L. Ensminger and J.C. Strasser. Awarded to and administered through Northwest Missouri State University.
- 1999: (OPP-9820446), "REU: Glacial Geological Research for Undergraduates, Matanuska Glacier, Alaska"
 \$146,490 (3-yr REU grant), J.C. Strasser and J.C. Gosse (Univ. of Kansas). Awarded to and administered through Augustana College.
- 1998: (OPP-9732197), "Glacial Geological Research for Undergraduates, Matanuska Glacier, Alaska."
 \$41,864 (1-yr REU grant), J.C. Strasser and E.B. Evenson (Lehigh University). Awarded to and administered through Augustana College.
- 1996: (OPP-9530757), "Tritium in basal ice and debris bands: demonstration of freeze-on from subglacial waters." \$197,150 awarded to E.B. Evenson (Lehigh University). Awarded to and administered through Lehigh University.
- 1993: (OPP-9223007), "Supercooled water, basal freeze-on (underplating), and the formation of laminated basal ice: Matanuska Glacier, Alaska." \$99,246 awarded to E.B. Evenson (Lehigh University). Awarded to and administered through Lehigh University.

Other Grants

- 2003: Augustana College Faculty Research Fund. "Depositional Processes of Ancient Midwestern Glacial Sediments" \$1200 for fieldwork and laboratory investigations during sabbatical.
- 1997: Augustana College New Faculty Research grant of \$8000 awarded to J.C. Strasser and C.K. Geedey for the purchase and operation of a Hydrolab data logger for on-campus studies of the slough pond.
- 1994: USA CRREL, "Hydrological studies of the Matanuska Glacier and River system". \$49,833 awarded to E.B. Evenson and J.C. Strasser.
- 1993: USA CRREL, "Hydrological studies of the Matanuska Glacier and River system". \$37,521 awarded to E.B. Evenson and J.C. Strasser.
- 1992: Geological Society of America, \$1600.
- 1992: Sigma Xi Scientific Society, \$400.
- 1991: Geological Society of America, \$1330.
- 1991: Sigma Xi Scientific Society, \$350.
- 1991: Lehigh University Earth and Environmental Sciences, \$480.

AWARDS

- 1992: Geological Society of America, Outstanding Student Research Award
- 1987: Carleton College Geology Department, Recognition of distinction in undergraduate research

DISSERTATION COMMITTEE

Richard B. Alley, Pennsylvania State University David J. Anastasio, Lehigh University Edward B. Evenson, Lehigh University (primary advisor) Grahame J. Larson, Michigan State University Daniel E. Lawson, U.S. Army Cold Regions Research and Engineering Lab.

MEMBERSHIP IN PROFESSIONAL SOCIETIES

Geological Society of America		
National Association of Geoscience Teachers		
Secretary (Central Section)	2016-17	
President (Central Section)	2015-16	
Vice President (Central Section)	2014-15	
2 nd VP (Central Section)	2013-14	
Association of American Geographers		

Friends of the Pleistocene

COURSES TAUGHT AT AUGUSTANA COLLEGE

GEOL-101 Physical Geology (1-2 sections/year)

GEOL-103 Historical Geology (once)

GEOL-105 Physical Geology in the Rocky Mountains (field course taught annually since 2002)

GEOL-115 Environmental Geology

GEOL-116 Energy Resources and the Environment (once as stand-alone, and twice as LC with BIOL-385)

GEOL-200 Advanced General Geology (no longer offered)

GEOL-304 Sedimentary Petrology (no longer offered)

GEOL-309 Geomorphology (1 section every year)

GEOL-330 Hydrogeology (1 section every 2 years)

GEOL-340 Structural Geology and Tectonics (1 section every year)

GEOL-370 Special Topics (1 credit course, typically related to spring fieldtrip)

GEOL-420 Global Tectonics (no longer offered)

GEOL-450 Research Methods (Spring 2017)

GEOL-451 Senior Inquiry (Advising student research projects on an independent basis)

LS112 Deep Time: Scientists Challenging Convention (once)

PUBLICATIONS

Dissertation

Strasser, Jeffrey C., 1996, Subglacial ice growth, basal accretion, and debris entrainment at the Matanuska Glacier, Alaska: Lehigh University, Bethlehem, PA, Ph.D. Dissertation, 137 pp.

Papers published

- Alley, R. B., Cuffey, K. M., Evenson, E. B., Strasser, J. C., Lawson, D. E., and Larson, G. J., 1997, How glaciers entrain and transport basal sediment: physical constraints: Quaternary Science Reviews, v. 16, p. 1017-1038.
- Alley, R. B., Lawson, D. E., Evenson, E. B., Strasser, J. C., and Larson, G. J., 1998, Glaciohydraulic supercooling: a freeze-on mechanism to create stratified, debris-rich basal ice: II. Theory: Journal of Glaciology, v. 44, no. 148, p. 563-570.
- Alley, R. B., Strasser, J. C., Lawson, D. E., Evenson, E. B., and Larson, G. J., 1999, Glaciological and geological implications of basal ice accretion in overdeepenings, *in* Mickelson, D. M., and Attig, J. W., eds., Glacial Processes Past and Present, Geological Society of America, Special Paper 337, p.1-10.
- Arcone, S. A., Lawson, D. E., Delaney, A. J., Strasser, J. C., and Strasser, J. D., 1998, Ground-penetrating radar reflection profiling of groundwater and bedrock in an area of discontinuous permafrost: Geophysics, v. 63, no. 5, p. 1573-1584.
- Baker, G.S., Strasser, J.C., Evenson, E.B., Lawson, D.E., Pyke, K.P., and Bigl, R.A., 2003, Near-surface seismic reflection profiling of the Matanuska Glacier, Alaska USA: Geophysics, v .68, no. 1, 147-156.
- Carson, B., Holmes, M. L., Umstattd, K., Strasser, J. C., and Johnson, H. P., 1991, Fluid expulsion from the Cascadia accretionary prism: evidence from porosity distribution, direct measurements, and GLORIA imagery: Phil. Trans. R. Soc. London, v. 335, p. 331-340.
- Carson, B., Suess, E., and Strasser, J. C., 1990, Fluid flow and mass flux determinations at vent sites on the Cascadia Margin Accretionary Prism: Journal of Geophysical Research, v. 95, p. 8891-8897.
- Delaney, A. J., Strasser, J. C., Lawson, D. E., Arcone, S. A., and Evenson, E. B., 1997, Geophysical investigations at a buried disposal site on Fort Richardson, Alaska: U.S. Army Cold Regions Research and Engineering Laboratory, CRREL Report 97-4, 14 p.
- Denner, J. C., Lawson, D. E., Larson, G. J., Evenson, E. B., Alley, R. B., Strasser, J. C., and Kopczynski, S., 1999, Seasonal variability in hydrologic-system response to intense rain events, Matanuska Glacier, Alaska, USA: Annals of Glaciology, v. 28, p. 267-271.
- Ensminger, S. L., Evenson, E. B., Alley, R. B., Larson, G. J., Lawson, D. E., and Strasser, J. C., 1999, Example of the dependence of ice motion on subglacial drainage system evolution: Matanuska Glacier, Alaska, United States, *in* Mickelson, D. M., and Attig, J. W., eds., Glacial Processes Past and Present, Geological Society of America, Special Paper 337, p. 11-22.
- Ensminger, S. L., Evenson, E. B., Larson, G. J., Lawson, D. E., Alley, R. B., and Strasser, J. C., 1999, Preliminary study of laminated, silt-rich debris bands: Matanuska Glacier, Alaska, USA: Annals of Glaciology, v. 28, p. 261-266.
- Evenson, E. B., Lawson, D. E., Strasser, J. C., Larson, G. J., Alley, R. B., Ensminger, S. L., and Stevenson, W. E., 1999, Field evidence for the recognition of glaciohydrologic supercooling, *in* Mickelson, D. M., and Attig, J. W., eds., Glacial Processes Past and Present, Geological Society of America, Special Paper 337, p. 23-36.
- Hoffman, J.S., Carlson, A.E., Winsor, K., Klinkhammer, G.P., LeGrande, A.N., Andrews, J.T., and Strasser, J.C., 2012, Linking the 8.2 ka Event and its freshwater forcing in the Labrador Sea: Geophysical Research Letters, v.39, L18703, 5p.
- Kodama, K. P., Hedlund, C., Gosse, J., and Strasser, J., 1994, Rotated paleomagnetic poles from the Sassamansville Syncline, Newark Basin, southeastern Pennsylvania: Journal of Geophysical Research, v. 99, no. B3, p. 4643-4653.
- Lachniet, M. S., Larson, G. J., Strasser, J. C., Lawson, D. E., Evenson, E. B., and Alley, R. B., 1999, Microstructures of glacigenic sediment-flow deposits, Matanuska Glacier, Alaska, *in* Mickelson, D. M., and Attig, J. W., eds., Glacial Processes Past and Present, Geological Society of America, p. 45-58.

- Lawson, D. E., Arcone, S. A., Delaney, A. J., Strasser, J. D., Strasser, J. C., Williams, C. R., and Hall, T. J., 1998, Geological and Geophysical Investigations of the Hydrogeology of Fort Wainwright, Alaska, Part II: North-Central Cantonment Area, USA CRREL Report 98-6, 66 p.
- Lawson, D. E., Strasser, J. C., Evenson, E. B., Alley, R. B., Larson, G. J., and Arcone, S. A., 1998, Glaciohydraulic supercooling: a mechanism to create stratified, debris-rich basal ice: I. Field evidence: Journal of Glaciology, v. 44, no. 148, p. 547-562.
- Lawson, D. E., Strasser, J. C., Strasser, J. D., Arcone, S. A., Delaney, A. J., and Williams, C., 1996, Geological and Geophysical Investigations of the Hydrogeology of Fort Wainwright, Alaska, Part I: Canol Road Area, U.S. Army Cold Regions Research and Engineering Laboratory, CRREL Report 96-4, 24 p.
- Strasser, J. C., Lawson, D. E., Larson, G. J., Evenson, E. B., and Alley, R. B., 1996, Preliminary results of tritium analyses in basal ice, Matanuska Glacier, Alaska, USA: Evidence for subglacial ice accretion: Annals of Glaciology, v. 22, p. 126-133.
- Strasser, J.C., Ensminger, S.L., Evenson, E.B., Larson, G.J., Lawson, D.E., Alley, R.B., 2000, Subglacial Freeze-on and the Formation of Basal Ice at the Matanuska Glacier, Alaska: Guidebook for the 1st Geological Society of America Field Forum, March 18-22, 2000.
- Titus, D. D., Larson, G. J., Strasser, J. C., Lawson, D. E., Evenson, E. B., and Alley, R. B., 1999, Isotopic composition of vent discharge from the Matanuska Glacier, Alaska: Implications for the origin of basal ice, *in* Mickelson, D. M., and Attig, J. W., eds., Glacial Processes Past and Present, Geological Society of America, p. 37-44.

Abstracts published

- Allewalt, J., Forester, R. M., Ager, T. A., Strasser, J. C., and Ensminger, S. L., 2001, A postglacial History of the Matanuska Valley: Geological Society of America, Abstracts with Programs, v. 33, no. 4, p. A-4.
- Alley, R. B., Evenson, E. B., Lawson, D. E., Strasser, J. C., and Cuffey, K. M., 1995, Glacial debris entrainment the missing link in erosion and sedimentation?, *in* International symposium on glacial erosion and sedimentation, Reykjavik, Iceland.
- Blazey, S.A., Strasser, J.C., 2011, Paleoflow velocities of catastrophic flooding on the Clarks Fork of the Yellowstone River, Northwestern Wyoming: Abstracts with Programs - Geological Society of America, v. 43, p. 92.
- Burnett, B. N., Giesting, M., Evenson, E. B., Strasser, J. C., Ensminger, S. L., and Lawson, D. E., 2001, Dye tracer experiments on the Matanuska Glacier, Alaska: Geological Society of America, Abstracts with Programs, v. 33, no. 4, p. A-5.
- Carlson, A. E., Strasser, J. C., Gosse, J. C., Evenson, E. B., and Larson, G. J., 2000, The composition, genesis and internal architecture of a Little Ice Age end moraine, Matanuska Glacier, Alaska: Geological Society of America, Abstracts with Programs, v. 32, no. 4, p. A-8.
- Cashman, B., Ensminger, S. L., Evenson, E. B., Strasser, J. C., Lawson, D. E., and Larson, G. J., 1999, Sediment grain size analysis as evidence for a glaciohydraulic injection mechanism of debris band formation, Matanuska Glacier, Alaska: Geological Society of America Abstracts with Programs, v. 31, no. 5, p. A-8.
- Ebert, K. T., Gilley, A., Ensminger, S. L., Strasser, J., and Evenson, E. B., 2001, Hydrogeochemistry comparison of a pristine watershed to an anthropogenically influenced watershed: Geological Society of America, Abstracts with Programs, v. 33, no. 4, p. A-6.
- Ensminger, S. L., Evenson, E. B., Alley, R. B., Lawson, D., and Strasser, J. C., 1998, Stage of drainage system evolution and water storage influence on the horizontal ice speed, Matanuska Glacier, Alaska: Geological Society of America, Abstracts with Programs, v. 30, no. 1, p. 16.
- Evenson, E. B., Ensminger, S. L., Larson, G., Lawson, D., Alley, R. B., and Strasser, J., 1998, "Shear planes" and "the dirt machine" revisited; the debris bands at the Matanuska Glacier are not "shear planes": Geological Society of America, Abstracts with Programs, v. 30, no. 1, p. 16-17.
- Goetz, S., Ham, N.R., and Strasser, J.C., 2005, Challenges and rewards in undergraduate field research case study of a site REU program at the Matanuska Glacier, Alaska: Geological Society of America, Abstracts and Programs, v.37, no. 7, p.493.
- Goetz-Ensminger, S.L., Ham, N., Strasser, J.C., 2003, Case study of the NSF-REU program, Matanuska Glacier, Alaska: Logistics, successes, and challenges: Geological Society of America, Abstracts with Programs, v.35, No.2, p.17.
- Grandt, E. H., Strasser, J. C., and Anderson, R. C., 2001, Clay mineralogy of Illinoian till at the Coal Creek section, Moline, Illinois: Geological Society of America, Abstracts with Programs, v. 33, no. 4, p. A-4.
- Hanson, T. D., Strasser, J. C., and Gosse, J. C., 1999, Detailed analysis of the internal characteristics of a recessional moraine, Matanuska Glacier, Alaska: Geological Society of America Abstracts with Programs, v. 31, no. 5, p. A-19.
- Hedlund, C. A., Gosse, J. C., Strasser, J. C., and Kodama, K. P., 1991, Mid-Jurassic synfolding magnetization of Newark Supergroup red sediments, Eastern Pennsylvania: , American Geophysical Union, Fall Meeting, Programs with Abstracts, v. 72, p. 128.
- Hoefle, P.M., and Strasser, J.C., 2011, Chemistry of Drinking Water of Northern Thailand: Abstracts with Programs -Geological Society of America, v. 43, p. 89.
- Hoffman, J., Carlson, A.E., Klinkhammer, G., Strasser, J.C., 2011, Identifying Laurentide Ice Sheet freshwater discharge in the western Labrador Sea during the 8.2 ka cold event: Abstracts with Programs - Geological Society of America, v. 43, p. 57.
- Johnson, J. J., Baker, G. S., Strasser, J. C., and Ensminger, S. L., 2002, Nature and origin of buried ice within a recessional moraine, Matanuska Glacier, Alaska: Geological Society of America Abstracts with Programs, v. 34, no. 2, p. A-85.
- Kowalczuk, R., Strasser, J., Evenson, E., Burkhart, P., Ensminger, S., and Lawson, D., 2002, Rotation, translation, and vertical displacement of supraglacial clasts during summer ablation, Matanuska Glacier, Chugach Mts., AK: Geological Society of America Abstracts with Programs, v. 34, no. 2, p. A-84.

- Larsen, I. J., Strasser, J. C., Bigl, R., Lawson, D. E., and Ensminger, S. L., 2001, New insight on the character of the hydrologic system of the Matanuska Glacier, Alaska, based on drilling, borehole monitoring, and dye tracing studies: Geological Society of America, Abstracts with Programs, v. 33, no. 4, p. A-5.
- Larson, G. J., Strasser, J. C., Evenson, E. B., and Lawson, D. E., 1994, Recent net freeze-on to the base of the Matanuska Glacier, Alaska, as indicated by ³H, □¹⁸O, and □ D: Geological Association of Canada, Programs with Abstracts, v. 19, p. 61.
- Lawson, D. E., Evenson, E. B., Strasser, J. C., Alley, R. B., and Larson, G. J., 1996, Subglacial supercooling, ice accretion, and sediment entrainment at the Matanuska Glacier, Alaska: Geological Society of America, Abstracts with Programs, v. 28.
- Lawson, D. E., Strasser, J. C., and Evenson, E. B., 1993, Frazil ice in subglacial and englacial conduits, Matanuska Glacier, Alaska, and its implications for glaciohydrologic processes, *in* International Workshop on Glacial Hydrology, Abstracts, Jesus College, Cambridge, UK.
- Lawson, D. E., Strasser, J. C., Evenson, E. B., Larson, G. J., and Alley, R. B., 1995, Basal freeze-on and sediment entrainment in an open hydrologic system, Matanuska Glacier, Alaska, USA, *in* International symposium on glacial erosion and sedimentation, Abstracts, Reykjavik, Iceland.
- Lawson, D. E., Strasser, J. C., Strasser, J. D., Arcone, S. A., and Delaney, A. J., 1995, Ground penetrating radar investigations of discontinuous permafrost terraine, Fort Wainwright, Alaska: Geological Society of America, Abstracts with Programs, v. 27, no. 5, p. 59.
- Lloyd, H. E., Evenson, E. B., Anastasio, D., Strasser, J., and Gosse, J., 2000, The "sliding boulders" of the Matanuska Glacier, Alaska: their source, movement mechanism and rate, and fate: Geological Society of America, Abstracts with Programs, v. 32, no. 4, p. A-23.
- McComb, S. W., Baker, G. S., and Strasser, J. C., 2001, Tap student interest by tapping into polar science: Teachers Experiencing Antarctica and the Arctic: Geological Society of America Abstracts with Programs, v. 33, no. 6, p. A-352.
- Melton, B., and Strasser, J.C., 2010, Depositional timing and paleoclimatic implications of sand dunes in the Meredosia Bottoms, northwestern Illinois, USA: Abstracts with Programs - Geological Society of America, v. 42, p. 65-65.
- Nutt, W. V., Strasser, J. C., Evenson, E. B., Ensminger, S. L., and Lawson, D. E., 1998, Comparative analysis of clasts from the Matanuska Glacier, Alaska: Reading between the striations: Geological Society of America Abstracts with Programs, v. 30, no. 2, p. 64-65.
- O'Hearn, M. M., Ham, N., Strasser, J. C., and Ensminger, S., 2002, Medial moraine contributions to the construction of end moraines, Matanuska Glacier, Alaska: Geological Society of America Abstracts with Programs, v. 34, no. 2, p. A-84.
- Pemberton, K. M., Ensminger, S. L., Strasser, J. C., Evenson, E. B., and Lawson, D. E., 2001, Multiple orientations and generations of basal crevasse fills, Matanuska Glacier, Alaska: Geological Society of America, Abstracts with Programs, v. 33, no. 4, p. A-5.
- Slaker, A.J., and Strasser, J.C., 2011, Micro-structural research for Heart Mountain movement in the Madison, Dinwoody, and Chugwater Formations, northwestern Wyoming: Abstracts with Programs - Geological Society of America, v. 43, p. 114.
- Strasser, J. C., Evenson, E. B., Larson, G. J., and Lawson, D. E., 1994, Sediment entrainment and net freeze-on to the base of the Matanuska Glacier, Alaska, as indicated by bomb-produced tritium: Geological Society of America, Abstracts with Programs, Northeastern Section, v. 26, no. 3, p. 75.
- Strasser, J. C., Evenson, E. B., Lawson, D. E., Larson, G. J., and Alley, R. B., 1996, Freeze-on of tritium-enriched basal ice, Matanuska Glacier, Alaska: Geological Society of America, Abstracts with Programs, v. 28.
- Strasser, J. C., Kornreich Wolf, S., and Wolf, M. B., 1999, "Let's Rock" A geology short-course for elementary students: Geological Society of America Abstracts with Programs, v. 31, no. 5, p. A-74.
- Strasser, J. C., Larson, G. J., Lawson, D. E., Evenson, E. B., and Alley, R. B., 1995, Debris-rich basal ice produced by net freeze-on, Matanuska Glacier, Alaska, USA, *in* International symposium on glacial erosion and sedimentation, Abstracts, Reykjavik, Iceland.
- Strasser, J. C., Lawson, D. E., Evenson, E. B., Gosse, J. C., and Alley, R. B., 1992, Frazil ice growth at the terminus of the Matanuska Glacier, Alaska, and its implications for sediment entrainment in glaciers and ice sheets: Geological Society of America, Abstracts with Programs, v. 24, no. 3, p. 78.
- Strasser, J. C., Lawson, D. E., Evenson, E. B., and Larson, G. J., 1994, Crystallographic and mesoscale analyses of basal zone ice from the terminus of the Matanuska Glacier, Alaska: Evidence for basal freeze-on in an open hydrologic system: Geological Society of America, Abstracts with Programs, v. 26, no. 7, p. A-177.
- Strasser, J. C., Lawson, D. E., Larson, G. J., Denner, J., Alley, R. B., and Evenson, E. B., 1996, Glaciohydrological response to an intense rain event, Matanuska Glacier, Alaska: Geological Society of America Abstracts with Programs, v. 28, no. 7, p. A-56.
- Strasser, J. C., Weddle, T. K., and Dorion, C. C., 1995, Late Wisconsinan stratigraphy and deglaciation chronology of the lower Aroostook River Valley, Maine: Geological Society of America, Abstracts with Programs, v. 27, no. 1, p. 85.
- Strasser, J.C., and Wolf, M.B., 2010, Introductory physical geology in the Northern Rockies; an inquiry-based field course for incoming first-year college students: Abstracts with Programs Geological Society of America, v. 42, p. 76-76.
- Strasser, J. D., Lawson, D. E., Williams, C. R., Morse, J. S., and Strasser, J. C., 1995, The use of the CRREL modified flow probe in determining local ground water flow in discontinuous permafrost, Fort Wainwright, Alaska: Geological Society of America, Abstracts with Programs, v. 27, no. 5, p. 79.
- Swanson, B. A., Gosse, J. C., and Strasser, J. C., 2000, Downstream variation in outwash clast characteristics from an active glacial margin: application to ancient deposits: Geological Society of America, Abstracts with Programs, v. 32, no. 4, p. A-63.

- Terrien, J. J., Strasser, J. C., Ensminger, S. L., and Lawson, D. E., 2001, Dye-tracer experiments on a braided branch of the Matanuska River, Alaska: Geological Society of America, Abstracts with Programs, v. 33, no. 4, p. A-15.
- Villagomez, K.M., Strasser, J.C., 2005, Analysis of bedload sediment and the effect of flooding on bedload sediment transport of Salt Creek, in northwestern Illinois: Abstracts with Programs - Geological Society of America, v. 37, p. 85-85.
- Thompson, C. A., Strasser, J. C., Lawson, D. E., Denner, J., and Gosse, J. C., 1999, Controls on the groundwater of the proximal outwash plain, Matanuska Glacier, Alaska: Geological Society of America Abstracts with Programs, v. 31, no. 5, p. A-75.
- Waterson, N. J., Strasser, J. C., Larson, G. J., Linker, J., Evenson, E. B., and Lawson, D. E., 2000, Suspended sediment concentrations in subglacial discharge from the North Vent of the Matanuska Glacier, Alaska: Geological Society of America, Abstracts with Programs, v. 32, no. 4, p. A-66.
- Wolf, M. B., Kornreich Wolf, S., and Štrasser, J. C., 1999, A rock, mineral, and fossil learning kit for K-12 classrooms: Geological Society of America Abstracts with Programs, v. 31, no. 5, p. A-81.
- Zentmire, K. N., Gosse, J. C., Strasser, J. C., McDonald, E., and Wells, S., 1999, The problem of inheritance when dating alluvial fans and terraces with TCN: Insight from the Matanuska Glacier: Geological Society of America Abstracts with Programs, v. 31, no. 5, p. A-81.

Contract reports

- Arcone, S.A., Lawson, D.E., Delaney, A.J. and Strasser, J.C., 1993, Geophysical Investigations of Toxic Waste Sites within Operating Unit #1, Ft. Wainwright, Alaska, Summer, 1993: USA CRREL, Contract report prepared for Environmental Restoration Branch, Directorate of Public Works, and U.S. Army Corps of Engineers, Alaska District.
- Arcone, S.A., Lawson, D.E., Delaney, A.J. and Strasser, J.C., 1994, Ground penetrating radar investigation of the former Building 1599 microwell site: OU #1 Fort Wainwright, Alaska: USA CRREL, Contract report prepared for Environmental Restoration Branch, Directorate of Public Works, and U.S. Army Corps of Engineers, Alaska District.
- Hunter, L. E., Lawson, D. E., Bigl, S. R., Schlagel, J. D., and Strasser, J. C., 1997, The glacial geology and stratigraphy of Fort Richardson: a synthesis of the hydrogeologic framework: Hanover, NH, US Army Cold Regions Research and Engineering Laboratory, Interim Draft Report Prepared for U.S. Army-Alaska Directorate of Public Works
- Lawson, D.E., Arcone, S.A., Strasser, J.C., Delaney, A., Williams, C. and Albert, D., 1993, Geological and geophysical analyses of permafrost and ground water conditions, Fort Wainwright, Alaska: USA CRREL contract report prepared for Environmental Restoration Branch, Directorate of Public Works, and U.S. Army Corps of Engineers, Alaska District, 56 p.
- Lawson, D.E., Strasser, J.C. and Davi, J.D., 1994, Geological and geophysical investigations of the hydrogeology of Operable Unit 3, Interim Draft Report: USA CRREL, contract report prepared for Environmental Restoration Branch, Directorate of Public Works, and U.S. Army Corps of Engineers, Alaska District, 28 p.
- Lawson, D.E., Strasser, J.C., Arcone, S.A., Delaney, A.J. and Evenson, E.B., 1994, Reconnaissance ground-penetrating radar and electromagnetic induction surveys of the Poleline Road Site, Fort Richardson, Alaska: USA CRREL, Contract report prepared for Environmental Restoration Branch, Directorate of Public Works, and U.S. Army Corps of Engineers, Alaska District, 18 p.
- Lawson, D.E., Strasser, J.C., Strasser, J.D., Arcone, S.A., Delaney, A.J., Williams, C.R. and Bodette, J.H., 1995, Geological and geophysical investigations of the hydrogeology of the Operable Unit 4 landfill site, Fort Wainwright, Alaska: USA CRREL, Contract report prepared for Public Works, Environmental Branch, Fort Richardson, AK, and U.S. Army Corps of Engineers, Alaska District, 75 p.
- Strasser, J.C., 1993, Preliminary report on the surficial geology of the lower Aroostook River Valley, Maine : Augusta, Maine Geological Survey contract report, January 23, 1993, 21 p.
- Strasser, J.C., Delaney, A.J., Lawson, D.E. and Arcone, S.E., 1995, Geophysical investigations of the Poleline Road Disposal Area, Fort Richardson, Alaska: USA CRREL contract report prepared for Environmental Restoration Branch, Directorate of Public Works, and U.S. Army Corps of Engineers, Alaska District, 12 p.