James Howard Knapp, Ph.D.
Professor, School of the Earth, Ocean, and Environment
Former Chair, USC Columbia Faculty Senate
University of South Carolina
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(last revised 09 July 2017)

EDUCATION

1989 – Ph.D., M.I.T. (Structural geology and tectonics)
1984 – B.S., Stanford University (Geology, graduation with distinction)

EMPLOYMENT

8/04 – present	Univ. of South Carolina – Professor
6/98 – 8/04	Univ. of South Carolina – Associate Professor
	Cornell University – Adjunct Associate Professor
12/97 – 5/98	Cornell University – Senior Research Associate
11/91 – 12/97	Cornell University – Research Associate
12/90 – 9/91	Shell Offshore Inc. – Exploration Geologist
12/88 – 12/90	Shell Development Co. – Research Geologist
8/83 – 6/84	U.S. Geological Survey – Physical Science Technician

RESEARCH INTERESTS

Structural and geodynamic evolution of the continental lithosphere through integration of surface geological and active and passive-source seismological data. Application of geological and geophysical analysis to hydrocarbon exploration, using both 2-D and 3-D seismic reflection data. Design, acquisition, processing and interpretation of seismic experiments from shallow to lithospheric scale to solve structural and tectonic problems. Integration of research activities with course instruction at both the undergraduate and graduate level.

UNIVERSITY AND PROFESSIONAL SERVICE

USC Board of Visitors, Faculty Representative (2015-present)
Past Chair, USC Faculty Senate (2015-2016)
Chair, USC Faculty Senate (2013-2015)
Chair-elect, USC Faculty Senate (2012-2013)
USC Faculty Advisory Committee (2010-2013) and Chair (2011-2013)
Associate Chair, Department of Earth and Ocean Sciences (2010-2011)
EOS Budget Committee (2010-2011)
SEOE Advisory Committee (2010-2012, 2013-present)
SEOE Faculty Advisory Committee (2009-2010)

University Committee on Tenure and Promotion (2008-2010) and Chair (2009-2010)
Director of Undergraduate Research – USC Office of Research and Health Sciences (2007-2008)
College Curriculum Committee – College of Arts and Sciences (2006 – 2007)
Director of Undergraduate Studies – Dept. Geological Sciences (2001 – 2004)
SACS Writing and Oversight Team (WOT) – Univ. South Carolina (1999-2001)
Discovery Day Judge – Inaugural Year (2003)
Head Judge, Geology/Gen. Science Senior Division – USC Science & Engineering Fair (2006)
Chair Tenure and Promotion Committee – Dept. Geological Sciences (2004-2005; 2009-2010)
USArray Advisory Committee – IRIS (2004-2008)
Chair – Geophysics Division – Geological Society of America (2001 – 2002)
1st Vice Chair – Geophysics Division – Geological Society of America (2000 – 2001)
Editorial Board – South Carolina Geology (1999 – 2008)
South Carolina STATEMAP Advisory Board Member (1999 – present)

HONORS AND AWARDS

Breakthrough Leadership in Research, University of South Carolina (2014)
Golden Key International Honor Society Honorary Member (2012)
Mortar Board Excellence in Teaching Award (2012-2013)

CONGRESSIONAL TESTIMONY

Senate Committee on Energy and Natural Resources – Thursday, 19 May 2016 – "Hearing to Examine the Bureau of Ocean Energy Management's 2017-2022 OCS Oil and Gas Leasing Program"

House Committee on Foreign Affairs, Subcommittee on Western Hemisphere – Thursday, 14 May, 2015 – "Energy Revolution in the Western Hemisphere: Opportunities and Challenges for the U.S."

House Committee on Natural Resources, Subcommittee on Energy and Mineral Resources – Friday, 10 January 2014 – Oversight Hearing on "The Science behind Discovery: Seismic Exploration and the Future of the Atlantic OCS"

PUBLIC / MEDIA ENGAGEMENTS

South Carolina Energy Forum – Myrtle Beach, SC (17-18 Oct 2013)
North Carolina Energy Forum – Raleigh, NC (16 Jan. 2014)
U.S. Naval Academy Alumni Association – Columbia, SC (20 Feb 2014)
NC/SC Energy Forum Teleconference – (24 April 2014)
NC Energy Forum Teleconference – (01 May 2014)
Florida Energy Forum – Destin, FL (18 July 2014)
NOIA 2014 Fall Meeting – Naples, FL (04-05 Nov 2014, invited)
South Carolina Military and Naval Society – Columbia, SC (12 Jan 2015, invited)

EXTRAMURAL GRANT SUPPORT (PI unless otherwise noted)

1. "Southeast Offshore Storage Resource Assessment (SOSRA)" U.S. Dept. Energy – (10/15-09/17) ($3,944,618 total) **$1,000,000**
2. "Atlantic Offshore Wind Energy Development: Geophysical Mapping and Identification of Paleolandscapes and Historic Geophysical Mapping and Identification of Paleolandscapes and Historic Shipwrecks Offshore South Carolina" Bureau of Ocean Energy Management (BOEM) – (Co-P.I.) (11/14-10/16) **$570,000**
3. "Time-Lapse Seismic Monitoring of a Cold Seep Area in the Northern Gulf of Mexico (Woolsey Mound, MC118)" U.S. Dept. of Energy – (08/12-7/13) **$25,000**
4. "Geologic Characterization of the South Georgia Rift Basin for Source Proximal CO2 Storage (Supplement)" U.S. Dept. Energy – (Co-P.I.) (9/10-12/14) **$5,000,000**
5. "Geologic Characterization of the South Georgia Rift Basin for Source Proximal CO2 Storage" U.S. Dept. Energy – (Co-P.I.) (12/09-12/14) **$4,960,000**
6. "Geological and Geophysical Baseline Characterization of Gas Hydrates at MC118, Gulf of Mexico" U.S. Dept. Energy - (Co-P.I.) (08/09-07/11) **$284,899**
7. "Seismic Interpretation of the South Georgia Basin Complex" Savannah River National Lab – (05/10-12/10) **$37,501**
8. "Petroleum geology study of the Douala Basin, Equatorial Guinea" – Noble Energy, Inc. (01/08-06/10) **$129,009**
9. "Guinea Ecuatorial Geology (GEGEO) Program" - Industrial Consortium (Co-P.I.) - (9/03-9/06) **$1,800,000**
10. "Origin and crustal expression of active lithospheric delamination in the Vrancea Zone, Romania: Project DRACULA" NSF-EAR Tectonics / Geophysics – (7/03-6/06) **$362,604**
11. "Collaborative Research: Discrete vs. continuous continental deformation and the role of the lower crust in the Tien Shan" NSF-EAR Continental Dynamics – (8/03-7/08) **$1,081,969**
12. "Lithospheric structure of southeastern North America: Analysis of the SEISDATA geophysical dataset" Research & Productive Scholarship (USC) - (4/01-6/02) **$13,000**
13. "Lithospheric structure and tectonic evolution of the southeast Carpathians, Romania" NRC COBASE - (6/01-5/02) **$9,000**
14. "SEISDATA – Deep seismic study of the southeastern U.S." Geophysical Pursuit Inc. - (1/01-12/04) $1,186,000 (data grant)
15. "Reflections Under the Scottish Highlands (RUSH II): A broadband investigation of the extent and origin of upper mantle reflectors in Scotland" NSF-EAR Geophysics - (8/00-7/04) **$316,013**
16. "South Caspian Deep Seismic Project" Exxon New Ventures (CIS) – (11/99 – 10/01) **$21,744**
17. "Crustal structure and tectonic evolution of the South Caspian Basin: Deep seismic reflection data from the Absheron Ridge, Offshore Azerbaijan" ACS-PRF – (6/99-8/01) **$59,900**
18. "Equatorial Guinea Training Support" AFEX International (Houston) – (6/99-6/02) **$150,000**
19. "Project CASPIANSEIS: Deep seismic investigation of the Caspian Sea – Phase I" Industrial Consortium - (9/97-8/98) **$100,000**

20. “Deep seismic transect of the Uralian orogen: Project URSEIS” NSF-EAR Continental Dynamics – (1/95-12/96) **$624,843**
21. “Style and magnitude of crustal shortening in the Urals foreland: Timan-Pechora basin, Russia” CAST Program (NRC) – (9/93-2/94) **$8,400**
22. “Crustal structure of collisional orogens: The Ural Mountains, Russia” NSF-EAR Continental Dynamics – (8/93-1/95) **$173,169**

TEACHING EXPERIENCE

Exploration seismology, structural geology, mountain building, lithospheric seismology, field geology, field-based introductory geology, sequence stratigraphy, introductory geology, geology of South Carolina

STUDENT SUPERVISION

Ph.D. Dissertations

1. **Dr. David N. Steer** – Geological Sciences, Cornell University – Ph.D. awarded May 1996
   Dissertation title: “Imaging the continental lithosphere: Results of deep seismic reflection profiling in the Williston basin, Montana and the Urals of central Russia.”
   Current position: Professor, Department of Geology and Environmental Science, University of Akron, Akron, Ohio.
2. **Dr. Camelia C. Diaconescu (Knapp)** – Geological Sciences, Cornell University – Ph.D. awarded May 2000
   Dissertation title: “Deep seismic studies of the central Eurasian lithosphere: Southern Uralian orogen and South Caspian basin."
   Current position: Professor, School of Earth, Ocean, and Environment, University of South Carolina, Columbia, South Carolina.
3. **Dr. Eugenio Asencio** – Geological Sciences, University of South Carolina – Ph.D. awarded May 2003
   Dissertation title: "Imaging lithospheric structure in northern Scotland and the South Caspian Basin."
   GAANN Fellow and citizen of Puerto Rico.
   Current position: Assistant Professor (tenured), Department of Geology, University of Puerto Rico, Mayaguez, Puerto Rico.
4. **Dr. Melvin Fillerup** – Earth and Ocean Sciences, University of South Carolina – Ph.D. awarded Dec 2010
   Dissertation title: “Geophysical and geochemical constraints on the geodynamic origin of the Vrancea Seismogenic Zone, Romania.”
   Current position: Exploration geophysicist, Shell International Exploration and Production, Houston, TX.
5. **Dr. David Heffner** – Earth and Ocean Sciences, University of South Carolina – Ph.D. awarded May 2013
   Dissertation title: “Tectonics of the South Georgia Rift.”
   Current position: Exploration geophysicist, Anadarko Petroleum, Houston, TX.
6. **Dr. Antonello Simonetti** – Earth and Ocean Sciences, University of South Carolina – Ph.D. awarded Dec 2013
   Dissertation title: “Spatial and temporal characterization of a cold seep-hydrate system (Woolsey Mound, deep-water Gulf of Mexico).”
   Current position: Exploration geophysicist, BP, Houston, TX.
7. **Dr. Josgre Salazar** – Earth and Ocean Sciences, University of South Carolina – Ph.D. awarded Dec 2015
   Dissertation title: “Salt tectonics, stratigraphy, and gas hydrates assessment of Pliocene-to-Holocene sediment gravity flows at Mississippi Canyon 118 (MC-118), Gulf of Mexico.”
   Current position: Exploration geophysicist, Repsol Oil Co., Houston, TX.

8. **Ms. Erin Derrick** – Earth, Ocean, and Environment, University of South Carolina – Ph.D. student (ABD)
   Dissertation title: "Reanalysis of the Middleton Place-Summerville Seismic zone and the Lincolnville fault."
   Current position: Middle School Teacher, Hammond School, Columbia, SC.

9. **Ms. Susie Boote** – Earth, Ocean, and Environment, University of South Carolina – Ph.D. student (in progress)
   Dissertation title: "Tectonic Studies of the Atlantic OCS"

10. **Mr. Ross Cao** – Earth, Ocean, and Environment, University of South Carolina – Ph.D. student (in progress)
    Dissertation title: "South Georgia Rift Basin, Southeastern United States: New Insights on Transfer Zones and Stratigraphy."

11. **Mr. Dawod Almayahi** – Earth, Ocean, and Environment, University of South Carolina – Ph.D. student (in progress)
    Dissertation title: TBD

Completed Masters Degrees

1. **Ms. Monica A. Bader** – Geological Sciences, Cornell University – M.S. degree awarded January, 1995
   Thesis title: "Crustal structure of the Middle Urals, Russia: The ESRU Profile."
   Current position: Exploration Geophysicist, BP-Amoco Corporation, Houston, Texas.

2. **Mr. Timothy J. Piwowar** – Geological Sciences, Cornell University – M.S. degree awarded January 1997
   Thesis title: "Long-wavelength flexural uplift of the Southern Urals and Central Asia."
   Current position: Exploration Geologist, Shell Deepwater Development Inc., New Orleans, Louisiana.

3. **Mr. Jonathan C. Clark** – Geological Sciences, USC – M.S. degree awarded May, 2001
   Thesis title: "Geomorphic, structural, and stratigraphic evidence for Triassic to Recent tectonic uplift of the southeastern United States Atlantic coastal margin."
   Current position: Senior Geologist, ExxonMobil Exploration Co., Houston, Texas.

4. **Mr. Seth D. Ackerman** – Geological Sciences, USC – M.S. degree awarded May, 2002
   Thesis title: "Subsurface and surface evidence for a fault-control origin of the southern Blue Ridge escarpment in Georgia and South Carolina."
   Current position: Coastal and Marine Geology Program, U.S.G.S., Woods Hole, Massachusetts.

5. **Mr. Alfredo Ovono Oba** – Geological Sciences, USC – M.S. degree awarded December, 2002
   Thesis title: "Tectono-stratigraphic evolution of the Rio Muni basin, Equatorial Guinea."
   Current position: Ministry of Mines and Energy, Malabo, Equatorial Guinea.

6. **Mr. Salomon Ngu Nve** – Geological Sciences, USC – M.S. degree awarded December, 2002
   Thesis title: "Nature and distribution of deep-water channel sands and fan system of the Zafiro field of the Niger Delta."
   Current position: Ministry of Mines and Energy, Malabo, Equatorial Guinea.

7. **Mr. Jose Manuel Bacale** – Earth and Ocean Sciences, USC – M.S. degree awarded May, 2010
   Thesis title: "Sediment Supply Effects on the Plio-Pleistocene Stratigraphic Evolution of the Douala Basin."
   Current position: Field Engineer, Baker Hughes, Malabo, Equatorial Guinea.

8. **Mr. Andrew Pollack** – Earth and Ocean Sciences, USC – M.S. degree awarded May, 2014
   Thesis title: "Tectonic studies of the Atlantic margin in the southeastern United States."
   Current position: Geologist, Devon Oil Co., Oklahoma City, OK.

9. **Mr. Nathan Robinson** – Earth and Ocean Sciences, USC – M.S. degree awarded Dec, 2014
   Thesis title: "Temporal constraints on Holocene initiation and termination of mound development at an episodic gas hydrate and cold seep system, Woolsey Mound, northern Gulf of Mexico."
   Current position: Geologist, Shell Oil Co., Houston, TX.

10. **Mr. Ricardo Kabila** – Earth and Ocean Sciences, USC – M.S. degree awarded May, 2015
    Thesis title: "Temporal constraints on Holocene initiation and termination of mound development at an

episodic gas hydrate and cold seep system, Woolsey Mound, northern Gulf of Mexico."
Current position: Geophysicist, ExxonMobil Angola, Luanda, Angola.

11. **Mr. Jospeh Getz** – Earth, Ocean, and Environment, USC – M.S. degree anticipated Dec. 2016
Thesis title: "Evidence for and Implications of a sub-horizontal stratigraphic sequence below the Post-Rift Unconformity in the Middleton Place Seismic Zone"

12. **Mr. Ahmet Postaagasi** – Earth, Ocean, and Environment, USC – M.S. degree anticipated Dec. 2017
Thesis title: TBD

13. **Ms. Ceren Postaagasi** – Earth, Ocean, and Environment, USC – M.S. degree anticipated Dec. 2017
Thesis title: TBD

Undergraduate Thesis Advisees

1. **Mr. Justin Holliday** – School of Earth, Ocean, and Environment, USC, B.S. Geophysics, anticipated 2017 (Senior Thesis) – "The Gulf Stream Granophyre: Evidence for the Earliest Mesozoic Rift-Related Magmatism in Eastern North America."
2. **Mr. Jay Steacy** – Earth and Ocean Sciences, USC, B.S. Geological Sciences, 2013, (Senior Thesis) – "The role of magmatism in the evolution of southeastern North America in relation to the Central Atlantic Magmatic Province, the "J" Horizon, and seaward-dipping reflectors."
3. **Mr. Nathan Robinson** – Earth and Ocean Sciences, USC, B.S. Geological Sciences, 2013, (Senior Thesis) – "Shallow High-Resolution Structure and Stratigraphy of the Woolsey Mound Hydrate System."
4. **Ms. Kimberly McCormack** – Earth and Ocean Sciences, USC, B.S. Geophysics, 2013, (Senior Thesis) – "Transfer Faults of the South Georgia Rift Basin and Their Tectonic Significance"
5. **Ms. Melissa Sims** – Earth and Ocean Sciences, USC, B.S. Geophysics, 2012, (Senior Thesis) – "Refraction Analysis of the Lower Mesozoic Section of the South Georgia Rift Basin in Lower South Carolina"
6. **Robb Hawfield** – Geological Sciences, USC, B.S. Geology, 2009, (Senior Thesis) – "Eolian origin of the Pinehurst Formation, Upper Coastal Plain, South Carolina."
7. **Ignacio Motobe** – Geological Sciences, USC, B.S. Geophysics, 2008, (Senior Thesis) – "Identification and remediation of karst features at Santee State Park, South Carolina." -
8. **Rosendo King** – Geological Sciences, USC, B.S. Geophysics, 2008 Magellan Scholar – "Construction of 3-D Crustal Velocity Models from Earthquake Sources: A test case in the Ene Basin, Peru" (2007-2008).
9. **Emily Graham** – Geological Sciences, USC Capstone Scholar, B.S. Geophysics, 2007-2008 Magellan Scholar – "Identification of active faults in the Ene Basin, Peru" (2007-2008).
10. **Patrick Duff** – Geological Sciences, USC, B.S. Geology, 2007 – "3-D analysis of the Absheron Allochthon: structural style and timing constraints" (2004-2005).
11. **Logan Hansen** – Geological Sciences, USC, B.S. Geophysics, 2005, (Senior Thesis) – "First-arrival tomographic study of the Ialomiţa Fault in the Romanian Carpathian foreland: Results from DRACULA III and implications for Vrancea seismicity" (2004–2005).
12. **Andrew Frassetto** – Geological Sciences, USC Honors College, B.S. Geophysics, 2004 – "Project DRACULA: Deep Reflection Acquisition Constraining Unusual Lithospheric Activity."
13. **Christopher Mitchell** – Geological Sciences, USC Honors College, B.S. Geology, 2006 – "Evidence for climatically-driven slope failure in the South Caspian Sea" (Fall, 2003).
14. **Mary K. Varga** – Geological Sciences, USC, B.S. Geology, 2001 – "Development of a GISdatabase for geology and geophysics of the State of South Carolina." (Fall, 2000).
15. **Gary Shehane** – Geological Sciences, USC, B.S. Geophysics, 2001 – "Digitization of geologic maps of the State of South Carolina." (Spring, 2000).

16. **Anthony L. Jones** – Geological Sciences, USC, B.S. Geophysics, 2002 – "Use of short-period receiver functions from earthquake records to identify upper mantle structure in northwestern Scotland." (Fall, 2000)
17. **Daniel Brachfeld** – Geological Sciences, Cornell University – "Use of ERMapper in combining geology and digital topography, Southern Appalachians, USA." (Fall, 1992)
18. **Ethan Johnson** – Geological Sciences, Cornell University – "GIS techniques for working with geological and geophysical data, Ural Mountains, Russia." (Spring, 1993).
19. **Kirk Eby** – Geological Sciences, Cornell University – "Development of a digital geologic database of the Ural Mountains, Russia." (Fall, 1993-Spring, 1994).
20. **Aaron Turecek** – Geological Sciences, Cornell University, B.S. Geology, 1995 – "Landsat remotesensing of geologic structure in the Urals Mountains, Russia." (Fall, '94 – Spring '95).

SELECTED INVITED LECTURES

Stanford University
M.I.T.
U.C. Santa Cruz
Renssalear Polytechnic Institute
Rice University
Lehigh University
Virginia Polytechnic Institute
University of South Florida
University of Kansas (twice)
North Carolina State University
Cornell University
Kansas State University
University of New Orleans
University of South Carolina
University of North Carolina
Cambridge University (England)
Vrije Universitet (Netherlands)
GeoForschungsZentrum-Potsdam (Germany)
Uppsala University (Sweden)
University of Georgia

SOCIETY MEMBERSHIP

Geological Society of America – since 1984
American Geophysical Union – since 1983
Houston Geological Society – since 1988
New Orleans Geological Society – since 1991
American Association of Petroleum Geologists – since 1991
European Geophysical Society – since 1996
American Association for Advancement of Science – since 1997

PEER REVIEWED PUBLICATIONS (* represents advisee)

1. Howell, D.G., Gibson, J.D., Fuis, G.S., **Knapp, J.H.**, Haxel, G.B., Keller, B.R., Silver, L.T., and Vedder, J.G., 1985, C-3 Pacific abyssal plain to the Rio Grande Rift: Centennial Continent-Ocean Transect #5: *Geol. Soc. Am. DNAG publication*, Boulder, CO.
2. McLean, H., Hausback, B.P., and **Knapp, J.H.**, 1987, The geology of west-central Baja California Sur, Mexico: *U.S. Geol. Surv. Bull. 1579.*
3. Hodges, K.V., McKenna, L.W., Stock, J., **Knapp, J.**, Page, L., Sternlof, K., Silverberg, D., Wüst, G., and Walker, J.D., 1989, Evolution of extensional basins and Basin and Range topography west of Death Valley, California: *Tectonics, v. 8, p. 453-467.*
4. **Knapp, J.H.**, and Heizler, M.T., 1990, Thermal history of crystalline nappes of the Maria fold and thrust belt, west-central Arizona: *Jour. Geophys. Res., v. 95, p. 20,049-20,073.*
5. Juhlin, C., Kashubin, S., **Knapp, J.H.**, Makovsky, V., and Ryberg, T., 1995, Project conducts seismic reflection profiling in the Ural Mountains: *EOS Trans. AGU, v. 76, n. 19, p. 193, 197-198*.
6. Baird, D.J., **Knapp, J.H.**, Steer, D.N., Brown. L.D., and Nelson, K.D., 1995, Upper mantle reflectivity beneath the Williston Basin, phase-change Moho, and the origin of intracratonic basins: *Geology, v. 23, n. 5, p. 431-434*
7. Steer, D.N.*, **Knapp, J.H.**, Brown, L.D., Rybalka, A.V., and Sokolov, V.B., 1995, Crustal structure of the Middle Urals based on reprocessing of Russian seismic reflection data: *Geophys. Jour. Int., v. 123, p. 673-682.*
8. Steer, D.N.*, Brown, L.D., **Knapp**, **J.H.**, and Baird, D.J., 1996, Comparison of explosive and vibroseis source energy penetration in the Williston Basin, Montana and North Dakota: *Geophysics, v. 61, p. 211-221*.
9. Baird, D.J., Nelson, K.D., **Knapp, J.H.**, Walters, J.J., and Brown, L.D., 1996, Crustal structure and evolution of the Trans-Hudson orogen: Results from seismic reflection profiling, *Tectonics, v. 15, p. 416-426.*
10. Juhlin, C., **Knapp, J.H.**, Kashubin, S., and Bliznetsov, M., Crustal evolution of the Middle Urals based on seismic reflection and refraction data, *Tectonophysics, v. 264, p. 21-34*.
11. Berzin, R., Oncken, O., **Knapp, J H**, Perez-Estaún, A., Hismatulin, T., Yunosov, N., and Lipilin, A., Orogenic evolution of the Ural Mountains: Results from an integrated seismic experiment, *Science, v. 274. p. 220-221.*
12. **Knapp, J.H.**, Steer, D.N., Brown, L.D., Berzin, R., Suleimanov, A., Stiller, M., Lüschen, E., Brown, D.L., Bulgakov, R., Kashubin, S.N., Rybalka, A.V., Lithosphere-scale seismic image of the Southern Urals from explosion-source reflection profiling*, Science, v. 274, p. 226-227.*
13. Carbonell, R., Perez-Estaún, A., Gallart, J., Diaz, J., Kashubin, S., Mechie, J., Stadtlander, R., Schulze, A., **Knapp, J.H.**, Morozov, A., Crustal Root Beneath the Urals: Wide-Angle Seismic Evidence, *Science, v. 274, p. 222-224.*
14. Echtler, H.P., Stiller, M., Steinhoff, F., Krawczyk, C., Berzin, R., Suleimanov, A., Spiridonov, V, **Knapp, J H.**, Menshikov, Y., Alvarez-Marron, J., Yunosov, N., Preserved collisional crustal structure of the Southern Urals revealed by vibroseis profiling, *Science, v. 274, p. 224-226.*
15. **Knapp, J.H.**, 1996, How Earth created heaven, *Nature (News and Views), v. 384, p. 409.*
16. Diaconescu, C.C.*, **Knapp, J.H.**, Brown, L.D., Steer, D.N., and Stiller, M., 1998, Precambrian Moho offset and tectonic stability of the East European platform from the URSEIS deep seismic profile*, Geology, v. 26, p. 211-214*.
17. Steer, D.N.*, **Knapp, J.H.**, Brown, L.D., Echtler, H.P., Brown, D.L., Berzin, R., 1998, Deep structure of the continental lithosphere in an unextended orogen: An explosive-source seismic reflection profile across the Urals (Urals Seismic Experiment and Integrated Studies (URSEIS '95)), *Tectonics, v. 17, p. 143-157*.
18. **Knapp, J.H.**, Diaconescu, C.C., Bader, M.A., Sokolov, V.B., Kashubin, S.N. and Rybalka, A.V., 1998, Seismic reflection fabrics of continental collision and post-orogenic extension in the Middle Urals, central Russia, *Tectonophysics, v. 288, p. 115-126.*
19. Steer, D.N.*, **Knapp, J.H.**, and Brown, L.D., 1998, Super-deep reflection profiling: Exploring the continental mantle lid, *Tectonophysics, v. 286, p. 111-121.*
20. Diaconescu, C.C.* and **Knapp, J.H.**, 2000, Buried gas hydrates in the deepwater of the South Caspian Sea, Azerbaijan: Implications for geo-hazards, *Energy Exploration and Exploitation, vol. 18, no. 4, p. 385-400*.
21. Carbonell, R., Gallart, J., Perez-Estaún, A., Diaz, J., Kashubin, S., Mechie, J., Wenzel, F., and **Knapp, J**., 2000, Seismic wide-angle constraints on the crust of the southern Urals, *J. Geophys. Res., v. 105, p. 13,755-13,777*.

22. Diaconescu, C.C.*, Kieckhefer, R. M., and **Knapp, J.H.**, 2001, Geophysical evidence for and thermobaric modeling of gas hydrates in the deep water of the South Caspian Sea, Azerbaijan, *Marine and Petroleum Geology, vol. 18, no. 2, p. 209-221.*
23. McBride, J.H. and **Knapp, J.H.**, Review of seismic reflector signatures of crustal deformation in the Appalachian-Caledonide orogen with reference to the Spanish Variscides and the Uralides, in Martinez-Catalan, J.R., Hatcher, R.D., Jr., Arenas, R., and Diaz Barcia, F., eds., Variscan-Appalachian synamics: The building of the late Paleozoic basement, Boulder, Colorado, *Geol. Soc. Amer. Special Paper 364, p. 281-300.*
24. Hauser, C. Prodehl, M. Landes, A. Bala, V. Raileanu, J. Bribach, **J. Knapp**, Camelia Diaconescu, C. Dinu, V. Mocanu, W. Fielitz, S. Harder, G. R. Keller, E. Hegedues, R.A. Stephenson, 2002, Seismic Experiments Target Earthquake-prone Region in Romania, EOS, Transactions, American Geophysical Union, 83 (41), 457, 462-463.
25. Diaconescu, C.C.*, and **Knapp, J.H.**, 2002, Role of a Phase-Change Moho in Stabilization and Preservation of the Southern Uralian Orogen, Russia, *in* D. Brown, C. Juhlin, and V. Puchkov, (eds.), *"Mountain Building in the Uralides: Pangea to the Present" AGU Geophys. Mono. 132, p. 67-82.*
26. Asencio, E.*, **Knapp, J.H.**, Owens, T.J., and Helffrich, G., 2003, Mapping fine-scale heterogeneities within the continental mantle lithosphere beneath Scotland: Combining active- and passive-source seismology, *Geology, v. 31, p. 477-480.*
27. Helffrich, G., Asencio, E., **Knapp, J.**, and Owens, T., 2003, Transition zone structure in a tectonically inactive area: 410- and 660-km discontinuity properties under the northern North Sea, *Geophys. J. Int., v. 155, p. 193-199.*
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