

CURRICULUM VITAE

Evgeni M. CHESNOKOV, Prof., Sci. D., Ph.D.

Address for Correspondence

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Personal:

Place of Birth

Nizhni Novgorod, Russia

Marital Status

Married, two children

Languages

Russian (mother tongue)

English (fluent)

German, French (some)

Education

- 1967** BSc.,MSc .in Theoretical Physics, Physical Faculty of Gorky State University, Nizhni Novgorod, Russia
- 1974** PhD in Geophysics, Thesis: Influence of Elastic Anisotropy of Polycrystalline Upper Mantle on the Characteristics of Seismic Waves. Moscow State University, Physical Faculty. Moscow, Russia
- 1987** Sci.D. in Geophysics. Thesis: Investigation of Seismic Anisotropy of the Earth's Lithosphere: Physical Nature and its Reflection upon Characteristics of Seismic Waves. Institute of Physics of the Earth, Russian Academy of Sciences. Moscow, Russia

Field of Investigations : Theoretical and Applied Geophysics:

1. Physical parameters (elastic and transport (electric, thermal & permeability) of micro-inhomogeneous, effectively anisotropic (porous, fractured, polycrystalline) media under thermodynamic conditions (stress, temperature)
2. The problem of saturated porous fractured medium permeability under applied stress.
3. Generation of seismic anisotropy due to various thermodynamic processes in the Earth
4. Wave propagation in fractured porous media (plane waves, impulse seismograms, point source in anisotropic randomly inhomogeneous porous media)
- 5 Forward and Inverse Problems of Fractured Porous Media. Static and Dynamic Case

Professional Experience

- 1969 - 1974** Post-graduate student, Moscow State University, Physical Department, Moscow, Russia.
- 1974 - 1986** Research Scientist, Senior Principal Scientist at the Institute of Physics of the Earth, Russian Academy of Sciences, Moscow, Russia
- 1986 – 1997** Head of Geophysics of Ordered Media Laboratory, the same Institute
Professor at Moscow State University, Mechanics and Mathematical Faculty
- 1997- 2000** Visiting Professor, Department of Geological Sciences, University College London, London, UK
- 2000- 2008** Research Professor at the Sarkeys Energy Centre, University of Oklahoma,
Director, Institute for Theoretical Geophysics, Sarkeys Energy Centre, University of Oklahoma
- 2008- present time** Professor at the Earth and Atmospheric sciences, College of Natural Sciences and Mathematics; Director, Institute for Theoretical Geophysics.

Teaching

- 1978 - 1997** Introduction to Continuum Mechanics For 4-th Year Students at the Geophysical Department of Physical Faculty, Geological Faculty, Mechanics & Mathematical Faculty of Moscow State University
- 1987- 1991** Introduction to Physics of the Earth. For 4-th Year Students at the Geodesy, Aerofoto and Cartography Institute, Moscow, Russia.
- 1991** Wave Propagation in Anisotropic Media. Spring semester course lectures. Geophysical Institute of Christian-Albrechts University, Kiel, Germany
- 1998- 2000** Introduction to Mathematics of Rock Physics. Spring semester course of lectures. Department of Geological Sciences, University College London, UK
- Global Seismology, Autumn semester course of lectures. Department of Geological Sciences, University College London, UK
- 2001- 2008** Introduction to Mathematics of Rock Physics. Autumn semester course of lectures; Global Seismology, Spring semester course of lectures; Linear Algebra for Geologists and Geophysicists; Wave Propagation in Randomly Inhomogeneous Arbitrary Anisotropic Porous Media Special Functions and Its Applications To Geology and Geophysics School of Geology and Geophysics of University of Oklahoma
- 2008- present** Continuum Mechanics With Elements Thermodynamics For Geologists and Geophysicists; Wave Propagation and Ray Theory

time

Previous Period of Study and Research Abroad (3 and more months):

01.1985 - 04.1985;

British Geological Survey, Edinburgh, Scotland, Visiting Professor

09.1991-11.1992

Institute For Geophysics, Kiel, Germany, Visiting Professor

Supervisor more than 20 Ms and 8 Ph D students. Recent ones are:

Ph.D. Students:

1. **Jamie Rich** “Quantitative Analysis of Material Contrasts and Wave Propagation in Periodic Media” **Graduated, 2006. School of Geology and Geophysics, University of Oklahoma**
2. **Satish Sinha** “ Seismic Wave Characteristics in Anisotropic Attenuating Media” **Graduated, 2006. School of Geology and Geophysics, University of Oklahoma**
3. **Alexander A. Vikhorev** “Wave Propagation In Inhomogeneous Two-Phase Media With Accounting Relative Movements and Interaction of Phases” **Graduated, 2005. Institute of Physics of the Earth Russian Academy of Sciences, Moscow, Russia.**
4. **Dileep Tiwary** “Mathematical Modeling and Ultrasonic Measurements of Shale Anisotropy and a Comparison of Upscaling Methods From Sonic To Seismic ” **School of Geology and Geophysics, University of Oklahoma. Graduated December 4, 2007**

Graduate Students:

1. **Tomeika Searcy:** Microearthquake Investigations to Reveal Anisotropic Behavior of Seismic Characteristics In The Barnett Shale: NEWARK EAST FIELD, WISE County TEXAS **Graduated, 2005. School of Geology and Geophysics University of Oklahoma**
2. **Deane Browning** **Investigating Well Production in the Barnett Shale Using Curvature, Anisotropy, and Microseismic Events ,MS, Graduated, 2006. School of Geology and Geophysics, University of Oklahoma**
3. **Ramon Asuaje** **Empirical Approaches To Pore Pressure Prediction. Graduated, 2007. School of Geology and Geophysics, University of Oklahoma**

ACADEMIC AND PROFESSIONAL HONORS:

Guest Editor, *Geophysical Royal Astronomical Society*, 1984, vol. 76; . London, UK

Guest Editor, *Geophysical Royal Astronomical Society*, 1988, vol. 80. London, UK

Guest Editor, *Izvestia Academy of Sciences, Physics of the Earth Interior*, 1986, No 11. Moscow, Russia

Guest Editor, Geodynamical Investigations. *Physical and Mechanical Models and Processes in the Earth's Tectonosphere*. Moscow. Radio and Sviiaz Publ. , **1984** No 7, p. 1 - 115. (in Russian).

Guest Editor *Geodynamical Investigations*. Moscow. Radio and Sviiaz Pub., **1984**. No 8, p. 1- 140. (in Russian).

Guest Editor *Geophysics. Special Issues: SCALE – FREQUENCY PHENOMENA AND EARTH STRUCTURE. "RAINBOW IN THE EARTH"* **2007**

Vice-Chairman of the *International Commission Wave Propagation In Real Media (International Association Of Seismology and Physics of The Earth Interior(IASPEI), 1985-1989*

Chairman of The Sub-Commission on Anisotropy (*International Association Of Seismology and Physics of The Earth Interior(IASPEI), 1994-1999*

Co-convenor of more than 10 *International Symposia and Workshops*

Co-founder of Seismic Anisotropy Meetings; 1982, Suzdal, Russia; 1984, Moscow, Russia

Founder of Scale-Frequency Phenomena International Meetings; "RAINBOW IN THE EARTH" Oklahoma, Norman, 2003; Berkley, California, 2005; Edinburgh, UK, 2007

RECENT FUNDING HISTORY

2003 – 2004: Industry Grant “3-D Fracture Determination For Barnett Shale Area And Pore Pressure Prediction” - \$ 385,000.00

2004 – 2005: Industry Grant “3-D Fracture Determination For Barnett Shale Area And Pore Pressure Prediction” - \$ 850,000.00

2005 -2006 : Industry Grant ““3-D Fracture Determination For Barnett Shale Area And Pore Pressure Prediction” - \$1,000,000.00;

**2006-2007 : Industry Grant ““3-D Fracture Determination For Barnett Shale Area And Pore Pressure Prediction” - \$ 1,000,000.00
Industry Grant “Scenario of Frac Event Development. Theory and Laboratory Measurements” - \$1.3,000,000.00;**

**2007 – 2008: Industry Grant “3-D Fracture Determination For Barnett Shale Area And Pore Pressure Prediction” - \$ 1,000,000.00
Industry Grant “Scenario of Frac Event Development. Theory and Laboratory Measurements” - \$1.5,000,000.00**

Pending Fund: Industry Grant - \$ 5.000,000.00

PUBLICATIONS

1973

1. **Chesnokov E.M. and Gliko A.O., 1973.** Elastic characteristics of a homogeneous transversely-isotropic structure model of the upper mantle. *Izv. Earth Physics* No 3, pp.20 – 28.
2. **Chesnokov E.M., 1973** On Elastic Anisotropy of Multicomponent Models of the Upper Mantle Structure. *Izv.Acad.Sci.USSR.Physics of the Earth*, No 5, pp. 28-38.
3. **Liakhovitsky and Chesnokov E.M., 1973.** Analysis of elastic anisotropy of the Upper Mantle Models of the oceans. *Vestnik Moscow University. Geology.* No 3,p.85-91. (in Russian)

1974

4. **Chesnokov E.M., 1974.** Influence of a polycrystalline upper mantle anisotropy on the characteristics of seismic waves. Abstract of PhD Thesis. Moscow, Moscow University Publ. Phys.Depart. p.1-12. (in Russian)

1975

5. **Chesnokov E.M. and Poppitz R.,1975.** Influence of elastic anisotropy of polycrystalline medium on characteristics of Love waves. *Veroff.Zentr.Inst.Der Erde*, v.31, p.441-456.(in German)
6. **Chesnokov E.M. and Kowalle G.,1975** Influence of elastic anisotropy on angles of emergence of seismic body waves. *Veroff.Zentr.Inst.Phys.der Erde.* v.31, p.457-471. (in German)

1976

7. **Galkin I.N.,Starshinova E.A. and Chesnokov E.M.,1976.** Determination of the velocity anisotropy in the upper mantle of the Black Sea Depression. In a book: *Complex Investigations of the Black Sea.* Moscow. Nauka Publ. p.7 - 14. (in Russian)
8. **Nevsky M.V. and Chesnokov E.M.,1976.** Observation Systems In deep seismic Sounding Used For Investigating the seismic Anisotropy Of Both The Crust And The Upper Mantle. *Izv. Earth Physics.* No 8, p.53-61.

1977

9. **Chesnokov E.M.,1977.** Seismic anisotropy of the upper mantle of the Earth (monograph). Moscow, Nauka Publ. p.1- 144. (in Russian)
10. **Chesnokov E.M. and Nevsky M.V., 1977.** Seismic Anisotropy investigations in the USSR. *Geoph.J.R.astr.Soc.*, v.49, p.119- 124

1979

11. **Chesnokov E.M. and Baumbach M., 1979.** Seismic anisotropy of lithosphere under oceans and its influence on the hodographs of the body waves. *Gerl.Beitr.fur Geoph.* No 5, p.377-386. (in German).

12. **Chesnokov E.M., 1979.** Seismic anisotropy investigations. In a book: Oceanology. v 1. Geophysics of the oceans. Moscow , Nauka Publ. p. 78-88. (in Russian).
13. **Kosarev G.L., Makeeva L.I., Savarensky E.F. and Chesnokov E.M 1979 a.** Effect Of Anisotropy Beneath Seismic Stations on Body Waves. Izv. Earth Physics.Vol. 15, No 2, pp.102-110.
14. **Kosarev G.L.,Makeeva L.I.,Savarensky E.F. and Chesnokov E.M., 1979 b.** Effect Of Anisotropy Beneath Seismic Stations on Body Waves Reprinted in Gerlan. Beitr. fur Geophysic. Vol.88, No 3, p. 225-239(in Russian)

1980

15. **Chesnokov E.M. and Baumbach M., 1980.** Seismic anisotropy of the crust and the upper mantle under oceans. Doklady. Earth Section., v.240, p. 17-19.

1981

16. **Nikitin L.V. and Chesnokov E.M., 1981.** Influence of a Stress Condition on the Anisotropy of Elastic Properties in a Medium. Izv. Earth Physics. Vol.17, No 3, pp. 174- 183.

1983

17. **Artemiev M.E., Kaban M.K. and Chesnokov E.M., 1983.** Density Inhomogeneities in the Earth's Mantle. Oceanic regions. Izv. Earth Physics Vol.19, No 2, pp. 84-90.
18. **Artemiev M.E., Kaban M.K. and Chesnokov E.M., 1983.** Surface Noniniformities of the Eart's Mantle based on Data on the Depth to Its "free" Surface: Continental Regions. Izv. Earth Physics Vol. 19, No 5, pp. 333-338.
19. **Magnitsky V.A. and Chesnokov E.M., 1983.** First International Working Conference On Theory, Observations and Causes of Seismic Anisotropy. May 12 - 19 May, 1982, Suzdal',USSR. Izv. Earth Physics. Vol.19, No 3, p. 252.

1984

20. **Bugaevsky A.G. and Chesnokov E.M., 1984.** Dynamic model of seismic anisotropy generation in the upper mantle. Doklady. Earth Section., vol. 265, pp.1-5.
21. **Crampin S., Chesnokov E.M. and Hipkin R.G., 1984a.** Seismic Anisotropy - The State of Art II. Geoph. J.R.astr.Soc. v.76, p. 1 - 16.
22. **Crampin S., Chesnokov E.M. and Hipkin R.G., 1984b.** Seismic Anisotropy - The State of Art II. Reprinted in First Break No 2, p. 9 - 18.
23. **Crampin S., Hipkin R.G and Chesnokov E.M., (editors), 1984.** Proceedings of the First International Workshop on Seismic Anisotropy. Geoph.J.R.astr.Soc. v.76, p. 1 - 272.

24. **Nikitin L.V. and Chesnokov E.M., 1984.** Wave Propagation In Stress Induced Media. Geoph.J.R.astr. Soc. v. 76, p. 129-133.
25. **Volarovich M.P., Efimova G.A., Kireenkova S.M., Safarov I.B. and Chesnokov E.M., 1984a.** Elastic Constants of Diopside at Pressures of up 20 kbar. Izvestiya, Earth Physics. Vol.20, No 12, pp. 960-962.
26. **Volarovich M.P., Efimova G.A., Kireenkova S.M., Safarov I.B. and Chesnokov E.M., 1984b.** Elastic Constants of Diopside at Pressures of up 20 kbar. Gerlands Beitr.Geophysik Leipzig, vol.98, No 2, pp.95-99.
27. **Bugaevsky A.G., Melnikov Yu.Yu. and Chesnokov E.M.,1984a.** About Effective Elastic Constants and Anisotropy of Media With Inclusions In a Book: Geodynamical Investigations. Physics and Mechanical Models and Processes in the Earth's Tectonosphere. Moscow. Radio and Sviaz Publ. No 7, p. 76-86. (in Russian).
28. **Bugaevsky A.G. and Chesnokov E.M., 1984b.** Impact of P-T Conditions On the Velocities Of Elastic Waves In The Mineralogical Models of The Earth's Crust of Iceland and Comparison With Seismic Models. In a Book: Geodynamical Investigations. Physics and Mechanical Models and Processes in the Earth's Tectonosphere. Moscow. Radio and Sviaz Publ. No 7, p. 108 - 113. (in Russian).
29. **Belousov V.V. and Chesnokov E.M.,(editors),1984.** Geodynamical Investigations. Physical and Mechanical Models and Processes in the Earth's Tectonosphere. Moscow. Radio and Sviaz Publ. No 7, p. 1 - 115. (in Russian).
30. **Belousov V.V. and Chesnokov E.M., (editors),1984,** Geodynamical Investigations. Moscow. Radio and Sviaz Pub. No 8, p. 1- 140. (in Russian)

1986

31. **Crampin S., Booth D.C., Chesnokov E.M. et al.,1986.** Shear Wave Polarization In the Peter The First Range Indicating Crack- Induced Anisotropy in Trust Fault Regime. Geoph.J.R.astr.Soc. v. 84, p.401-412.
32. **Magnitsky V.A. and Chesnokov E.M., 1986.** Geophysics of Anisotropic Media. State of Art. Izvestuya, Earth Physics,Vol.22, No 11, pp. 867-872.
33. **Chesnokov E.M. and Abaseev S.S., 1986.** Surface Seismic Wave Dispersion in Multilayered Anisotropic Media. Izvestiya. Earth Physics Vol.22, No 11, p. 891-898.
34. **Bugaevsky A.G. and Chesnokov E.M., 1986.** Formation Dynamics of the Seismic Anisotropy of the Ocean Upper Mantle .Izvestiya Earth Physics Vol.22, No 11, p. 911- 919.
35. **Krasnova M.A. and Chesnokov E.M.,1986** Experimental Investigations of Seismic Anisotropy of Earth's Lithosphere in The USSR and Outside (review). Seismic Exploration. Moscow, p. 1- 36. (in Russian).

36. **Booth D.C., Crampin S., Chesnokov E.M. and Krasnova M.A., 1986.** The Effect of Vertical Parallel Cracks On Shear Waves Polarization. *Geoph.J.R.astr.Soc.* v.77, p.583-594.
37. **Krasnova M.A., Crampin C., Booth D.K., Chesnokov E.M., Tarasov N.T., and Maksimov A.B., 1986.** *Doklady. Earth Section* Vol.288. No 3, pp. 582-585 (in Russian)

1987

38. **Chesnokov E.M. and Abaseyev S.S., 1987a.** Theoretical seismograms of surface seismic waves in anisotropic media. *Doklady. Earth Science Section.* v.286. No 1-6, pp. 22-27.
39. **Abaseyev S.S. and Chesnokov E.M., 1987b.** The Algorithm Of Computation of Synthetic Seismograms of Surface Waves In Multilayered Anisotropic Media. Moscow. VINITI Press.No 70.87. 3306-B87, p. 1-30 (in Russian)
40. **Crampin S., David Booth and Evgeni M. Chesnokov (editors)** *Geophysical Journal of the Royal Astronomical. Society.* Vol 91, No 2, November 1987 .
41. **Booth D.C., Crampin C., and Chesnokov E.M., 1987.** Preface: Proceedings of the Second International Workshop on Seismic Anisotropy. *Geophys.J.Roy.astr.Soc.* Vol.91, pp.261-263.
42. **Tsvankin I.D. and Chesnokov E.M., 1987.** Plane Waves In Nonlinear Anisotropic Media. *Geoph.J.R.astr.Soc.* v.91, p.413- 427.

1989

43. **Chesnokov E.M. and Zatsepin S.V., 1989a.** The Effective Modules of Elasticity For Different Types Of Anisotropic Media. *EOS.*, v. 70, No 15, p. 548.
44. **Chesnokov E.M. and Zatsepin S.V., 1989b.** The Effective Elastic Parameters Of Crack-Induced Anisotropic Media In Stress Field. *EOS.*, v. 70, No 15, p.548.

1990

45. **Tsvankin I.D. and Chesnokov E.M., 1990a.** Synthetic of Body Waves Seismograms From Point Sources In Anisotropic Media. *J.G.R.*, v. 95. No B7, p. 11.317 - 11.331.
46. **Tsvankin I.D. and Chesnokov E.M., 1990 b.** Synthetic Waveforms And Polarizations At A Free Surface of An Anisotropic Halfspace. *Geoph.J.Intern.* v. 101, No 3, p. 497-505.

1991

47. **Chesnokov E.M. and Zatsepin S.V., 1991.** Effect Of Applied Stress On Effective Elastic Anisotropy In Cracked Solids. *Geoph.J.Intern.* v.107, p. 563 - 569.
48. **Artemieva I.M. and Chesnokov E.M., 1991.** Thermal Characteristics Of Anisotropic Media With Inclusions. *Geoph. J.Intern.*, v 107, p. 557 - 562.
49. **Brodov L.Yu., Tichonov A.V., Chesnokov E.M. et all., 1991.** Estimating Physical

Parameters of Cracked Porous Reservoirs By Inverting of Shear Wave Splitting. Geoph.J.Intern. v. 107, p. 429 - 432.

1992

50. **Chesnokov E.M., Krasnova M.A., Abaseyev S.S. et. all., 1992.** Study Of Polarization of Shear Waves From Local Events Of Small Energy. In A book: Seismic Wave Fields. Nauka Publ. p. 34 - 48. (English Translation).

1993

51. **Booth D.C., Abaseyev S.S., ..., Chesnokov E.M., 1993.** Observations of Shear- Wave Splitting Near Ashchabad, Turkmenia. Canadian J.Expl.Geoph., v.29, No 1, p. 385 - 388.

1995

52. **Vshivtsev A.S., Tatarintsev A.V. and Chesnokov E.M., 1995a.** Green Function Of the Wave Equation For a Medium That Is Anisotropic. Doklady of the Russian Academy of Sciences. Earth Science Section, Vol.334.No 1, pp.28-35.

53. **Vshivtsev A.S., Tatarintsev A.V. and Chesnokov E.M., 1995b.** The Green function of the wave equation in a presence of an anisotropic medium. Physics of the Solid Earth (English Translation. Vol.30., No 9, pp. 822-829.

54. **Vshivtsev A.S. and Chesnokov E.M., 1995.** Propagation of Elastic Plane Solitary-Type Waves in a Nonlinear Anisotropic Medium. Physics of the Solid Earth , English Translation, v. 30 No 7/8, p. 694-696

55. **Vshivtsev A.S., Kosareva O.G. and Chesnokov E.M., 1995.** Green's Temperature Function For a Homogeneous Isotropic Medium. . Physics of the Solid Earth , English Translation, v. 31 No 1, p. 71-75.

56. **Chesnokov E.M., Kukharenko Yu.A. and Kukharenko P.Yu., 1995.** Method of Diagram Technique for Calculation of Effective Physical Parameters of Microinhomogeneous Media. SPIE Volume 2577. Proceedings of "Mathematical Methods in Geophysical Imaging III", p.2-12. San Diego, California.

1996

57. **Vsivtsev A.S., Zhukowskii K.V. and Chesnokov E.M., 1996.** An Effect of Initial Nonuniform Stresses on the Elastic Properties of An Anisotropic Body. Physics of the Solid Earth , English Translation, v. 31 No 5, p. 429-436.

58. **Vshivtsev A.S., Tatarintsev A.V. and Chesnokov E.M., 1996.** Propagation of Elastic Waves in An Anisotropic Media With Initial Stress. Physics of the Solid Earth , English Translation, v. 31 No 9, p. 758-764.

59. **Chesnokov E.M., Kukharenko Yu.A. , 1996.** Tensor of Effective Density for Media with Inclusions. SEG. Denver, Expanded Abstracts with Biographies, vol. 1, p.1033-1036.

1997

60. **Bayuk I.O. and Chesnokov E.M., 1997.** Is It Possible to Discriminate Between Gas and Liquid Inclusions ? SEG, Dallas, Expanded Abstracts with Biographies, vol.1, p.968-971.
61. **Bayuk I.O., Jones C., Meredith P.G. and Chesnokov E.M., 1997.** Experimental and Theoretical Study of Sedimentary Rock Properties. SEG , Dallas, Expanded Abstracts with Biographies, vol.1, p. 984-986.
62. **Meredith P.G, Bayuk I.O., Jones C., and Chesnokov E.M., 1997.** Experimental and Theoretical Modelling of Sedimentary Rocks. SEG , Dallas, Expanded Abstracts with Biographies, vol.1, p. 987-990

1998

63. **Bayuk I.O. and Chesnokov E.M., 1998.** Correlation Between Elastic and Transport Properties of Porous Cracked Anisotropic Media. Phys.Chem.Earth, vol.23. No 3.
64. **Krasnova M.A. and Chesnokov E.M., 1998.** Polarization of shear wave from local earthquakes of small energy in Earth's crust in Kamchatka, J. Volcanology & Seism. No 4, p.15-20.
65. **Krasnova M.A., Tertychni, V.V. and Chesnokov E.M., 1998.** Estimation of Physical Properties and Thickness of Anisotropic Layer in Earth's Crust of West Iceland, Izvestiya. Physics of the Solid Earth, Vol.34, No 9, pp.710-716.
66. **Chesnokov E.M., Kukhareno Yu.A. and Kukhareno P.Yu., 1998.** Frequency Dependence of Physical Parameters of Microinhomogeneous Media. Space Statistics. REVUE Del' INSTITUT FRANCAIS DU PETROLE, vol.53, No 5, p.729-734.

1999

67. **Krasnova M.A. and Chesnokov E.M., 1999.** Changes in Shear –Wave Polarization in the Crust of Kamchatka Based On Records of Local Earthquakes. Volc.Seis., Vol 20, pp. 539-550.
68. **Bayuk I.O. and Chesnokov E.M., 1999.** Identification of the Fluid Type in a Reservoir Rock. Izvestiya. Physics of the Solid Earth. Vol 35, No 11, pp. 917-923.

2000

69. **Bayuk I.O. and Chesnokov E.M., 2000.** Transport properties of porous cracked anisotropic medium, in “Porous media: physics, models, calculations”, pp. 325-336. Moscow, November 19-21, 1997. Ed. A. Dmitrievsky and M. Panfilov, World Scientific, Singapore, New Jersey, London, Hong Kong, 2000.
70. **Chesnokov E.M., Queen J.H., Kukhareno Yu.A., Bayuk I.O., and Hooper J.M.,** Dispersive properties of porous cracked media// Proceedings of 7th European Conference on the Mathematics of oil Recovery, 2000, 5-8 September, Baveno, Italy, V-24, pp. 35-41.

2001

71. **66. Chesnokov E.M., Queen J.H., Alexander A.Vikhorev, Heloise A.Lynn, John H.Hooper, Bayuk I.O., Castagna, John.P., and Baishali Roy, 2001.** Frequency Dependent Anisotropy SEG, 2001, ANI 1.9. San Antonio.
72. **Roy, Baishali, ..., Chesnokov, Evgeni M., 2001.** Prediction of Frequency Dependent Velocity in Porous Reservoirs. SEG, SP 4.8, vol.II, p. 1933-1936, 2001, San Antonio.

2002

73. **. Chesnokov E.M., Queen J.H., Kukharenko Yu.A., John H.Hooper, Bayuk I.O., and Vikhorev A.A., 2002.** Size-Frequency Effects and Reservoir Structure. Oklahoma Geological Survey Circular 107, p. 113-122
74. **Chesnokov E.M., Bell D.W., Queen J.H., kukharenko Yu.A. and Chourayev A.N., 2002.** Effective stress influence on elastic constants of fluid filled porous media. In *Poromechanics II Ayrialt et.al.(eds)*, p. 879-882.
75. **Vikhorev A.A. and Chesnokov E.M., 2002.** Wave Field in a Medium With Complicated Dispersion Law. Doklady of the Russian Academy of Sciences. Mechanical Science Section v.386, # 4, p.475-477.

2003

76. **E.Li, Queen J.H., Chapman M, Lynn H.B. and Chesnokov E.M., 2003.** Analysis of frequency-dependent seismic anisotropy from a multicomponent VSP. **Journal of Applied Geophysics . vol 54, pp. 319-333.**

2005

77. **Alexander A. Vikhorev, Mike Ammerman and Evgeni M. Chesnokov, 2005.** Reflection of elastic waves in the layered Biot medium. In *POROMECHANICS III*. Abousleiman et.al.Eds. p.321- 328.
78. **Satish Sinha, Vladimir Tertychniy, Mike Ammerman and Evgeni Chesnokov. 2005.** Predicting S-Wave Anisotropy From P-Wave Anisotropy. SEG, Houston, Expanded Abstracts With Biographies. Pp. 170 -174
79. **Tomieka Searcy, Sergey Abaseyev, Evgeni Chesnokov and Mike Ammerman. 2005.** Microearthquake Investigations in the Barnett Shale. Newark East Field, Wise County, Texas. SEG, Houston, Expanded Abstracts With Biographies. p. 166 -169

2007

80. **Irina O. Bayuk, Mike Ammerman and Evgeni M. Chesnokov, 2007.** Elastic Moduli OF Anisotropic Clay. Geophysics. Vol. 72, No 5, p. D107-D117
81. **Irina O. Bayuk, Mike Ammerman and Evgeni M. Chesnokov, 2007.** Upscaling of

Elastic Properties of Anisotropic Sedimentary Rocks. Geoph. J. Intern. (Accepted 2007, October 2. In press.)

Recent SEG Publications:

82. **Dileep K. Tiwary, Irina O. Bayuk, Mike Ammerman, and Evgeni M. Chesnokov, 2007**
Behavior of Shear waves in water- and gas- filled cracks in anisotropic matrix. SEG, San Antonio. **Technical Program. Expanded Abstract with Authors Biographies** p.159-153
83. **Dileep K. Tiwary, Irina O. Bayuk , Alexander Vikhorev, Mike Ammerman, and Evgeni M. Chesnokov, 2007.** Comparison of Seismic Upscaling Methods. SEG, San Antonio **Technical Program. Expanded Abstract with Authors Biographies** p.2723-2727
- 84 **Irina O. Bayuk , Nikolay Dyaur, Yaser Mohammed, Mike Ammerman, and Evgeni M. Chesnokov.2007** 3D velocity reconstruction in shale derived from limited number of Measurements. SEG, San Antonio. **Technical Program. Expanded Abstract with Authors Biographies** p.1535-1539
85. **Satish Sinha, Sergey Abaseyev, and Evgeni Chesnokov. 2007.**
Full Form Synthetic and Its Spectral in Multilayered Anisotropic Attenuating Media. SEG, San Antonio. **Technical Program. Expanded Abstract with Authors Biographies.** p.144-148
86. **Satish Sinha, Sergey Abaseyev, and Evgeni Chesnokov. 2007.**
P-wave and converted wave anisotropy due to Multiple Fracture sets. SEG, San Antonio. **Technical Program. Expanded Abstract with Authors Biographies** p.94-98.

Publications: 86 publications (Available upon request) **more than 105 abstracts** at International Symposiums and Workshops

ABSTRACTS PUBLISHED AT THE SEISMOLOGICAL RESEARCH LETTERS,
v. 78, No 2, March/April 2007

Papers were Presented at the Seismological Society Conference in May, 2007. Hawaii

1. **Menke, W., Chesnokov E., and Brown R., 2007.** Multiscale Seismology. **Seismological Research Letters, v.78, No 2, p. 247.**
2. **Vikhorev A.A., and Chesnokov E.M., 2007.** Effective Dynamic Properties of Randomly Inhomogeneous Media Defined By Statistically Homogeneous Correlation Function. **Seismological Research Letters, v.78, No 2, p. 311.**
- 3 **Vikhorev A.A., and Chesnokov E.M., 2007.** Solution of Wave Equation In An Inhomogeneous Medium With An Arbitrary Rheology. **Seismological Research Letters, v.78, No 2, p. 311.**
4. **Tiwary D.K., Bayuk Irina. O., Ammerman Mike and Chesnokov E.M., 2007.** Seismic Upscaling Using Pair and Multi Correlation Function Approach. **Seismological Research Letters, v.78, No 2, p. 312.**

5. **Brown R., , Chesnokov E., and, Menke, W.2007.** Scale Seismology. **Seismological Research Letters, v.78, No 2, p.312.**
6. **Bayuk Irina. O., Ammerman Mike and Chesnokov E.M., 2007.** Upscaling of Elastic Properties of Anisotropic Sedimentary Rocks **Seismological Research Letters, v.78, No 2, p. 312.**
7. **Chesnokov E.M., Ammerman M., and Abaseyev S.S., 2007.** Dynamic Model Of Fractured Medium For Microearthquake Locations. Upscaling of Elastic Properties of Anisotropic Sedimentary Rocks. **Seismological Research Letters, v.78, No 2, p. 313.**

Papers Presented at III-rd International Workshop on Frequency Dependence “RAINBOW IN THE EARTH” 29 July – 2 August, 2007, Edinburgh, UK

1. Scale Seismology – **Evgeni Chesnokov (University of Oklahoma)**
2. Effective Biot-Terzaghi’s stress tensor and Biot-Willis parameter for a poroelastic medium, saturated with a viscous liquid – **Evgeni Chesnokov (University of Oklahoma)**
3. Comparison of seismic upscaling methods – **Dileep Tiwary... Evgeni Chesnokov (University of Oklahoma)**
4. Upscaling of elastic properties of shales: from sonic to seismic – **Irina Bayuk, ..., Evgeni Chesnokov**
5. Bounds on components of effective stiffness tensor: shale with varying composition and crack/pore characteristics – **Juliana Gay,..., Evgeni Chesnokov (University of Oklahoma)**

Two papers were presented at local AAPG meeting in Wichita Falls (Texas, 2007)

One paper is accepted for presentation at American Geological Society Conference, Denver, 2007.

One paper is accepted for presentation at Acoustic Emission Conference, Nevada, 2007.

Conference Activities (109 abstracts)

- 1981 -** 21-st General Assembly of International Association of Seismology and Physics of the Earth's Interior (IASPEI), London, Ontario, Canada **(3 papers) Personal Invitation**
- 1982** 1- st International Workshop on Seismic Anisotropy, Suzdal, Russia Vice - Chairman of Organizing Committee **(4 papers) (2 Invited Papers)**
- 1983** International Union of Geodesy and Geophysics (IUGG) General Assembly, Hamburg, Germany, **(3 papers) Personal Invitation**
- 1985** 22-nd General Assembly of IASPEI, Tokyo, Japan. Co - convener of Session "Wave Propagation in Real Media. **(2 papers) Personal Invitation**
- 1986** 2-nd International Workshop on Seismic Anisotropy. Moscow, Russia Vice -Chairman of Organizing Committee **(6 papers).**
International Conference on Mathematical Geophysics. Oosterbeek. The Netherlands **(1 paper) Personal Invitation**
- 1987** General Assembly of IUGG, Vancouver, Canada **(4 papers) Personal Invitation**
- 1988** 3-rd International Workshop on Seismic Anisotropy. San Francisco. USA. **(3 papers) Personal Invitation**
- 1989** American Geophysical Union Meeting. Baltimore. USA. Session Co-convenor **(1 paper)**
23-rd General Assembly of IASPEI, Istanbul, Turkey **(3 papers). Personal Invitation**
- 1990** 4-th International Workshop on Seismic Anisotropy, Edinburgh, UK **(8 papers). Personal Invitation**
- 1991** 16-th General Assembly of European Geophysical Society (EGS), Wiesbaden. Germany **(1 paper)**
General Assembly of IUGG, Vienna, Austria **(3 papers) Personal Invitation**
- 1992** 17-th General Assembly of EGS, Edinburgh, UK **(5 papers). Personal Invitation**

5-th International Workshop on Seismic Anisotropy, Banff, Canada **(3 papers). Personal Invitation**

AEPG, 54-th Meeting and Technical Exhibition, Paris, France **(1 paper) Personal Invitation**
- 1993** 24-th General Assembly of IASPEI, New Zealand, Wellington **(8 papers) Personal Invitation**
- 1994 -** 6-th International Workshop on Seismic Anisotropy, Trondheim, Norway **(2 papers)**

Invited paper

- 1995** General Assembly of IUGG, Boulder, USA (co-convenor), **(1 paper) Co-convenor the Anisotropy Session Personal Invitation**
- 1996** 7-th International Workshop on Seismic Anisotropy, Miami, USA **(4 papers), Personal Invitation**
SEG, Denver, Colorado, USA, **(1 paper)**
- 1997** 25 General Assambly of International Association of Seismology and Physics of the Earth Interior (IASPEI), Thesaloniky (Greece) **(6 papers) Personal Invitation**
SEG, Dallas, USA, **(2 papers)**
- 1998** 8th International Workshop on Seismic Anisotropy, Boussense, France **(5 papers) Personal Invitation**
- 2000** SEG, New Orleans, USA **(2 papers).**
9th International Workshop on Seismic Anisotropy, Texas, USA **(3 papers)**
- 2001** SEG, San Antonio, Texas, **(2 papers)**
- 2004** 11th International Workshop On Seismic Anisotropy, Saint Johns, Canada **(5 papers)**
- 2006** Seismological Society of America Conference. San Francisco **(3 papers)**
- 2007** Seismological Society of America Conference. Hawaii. **(7 papers)**
III-rd International Conference on Frequency Dependency. RAINBOW IN THE EARTH, Edinburgh, UK **(5 papers)**
SEG, San Antonio **(5 papers)**

References: Available upon request.