Curriculum Vitae of Dr. Heinrich Begehr, Professor of Mathematics, Freie Universität Berlin

I. Personal Data

Full name: Heinrich Gottfried Werner Begehr

Date of Birth: April 17, 1939

Place of Birth: Halle/Saale, Germany

Adresses

a) ISAAC Home Pages http://www.mathisaac.org, http://www.math.fu-berlin.de/rd/ag/isaac

b) Begehr Home Page http://page.mi.fu-berlin.de/∼begehr

c) e-mail: begehr@math.fu-berlin.de; begehrh@zedat.fu-berlin.de

II. Education

Dipl. Math. (M.S. Mathematics), FU Berlin, 1966

Dr. rer. nat., FU Berlin, 1968, PhD Thesis: Der Beitrag zum Satz von Picard-Borel-Nevanlinna auf Riemannschen Flächen; Advisor: Alexander Dinghas.

Habilitation, FU Berlin, 1970

III. Experience

Assistent, Math. Inst., FU Berlin, 1966

Assistent with tenure, Math. Inst., FU Berlin, 1969

Professor (Assoc. Prof.), I. Math. Inst., FU Berlin, 1970, retired 2004

Director of I. Math. Inst., FU Berlin, 1972–73, 1974–80, 1982–83, 1986, 1990–1999, 2001–2004

IV. Editorship

Editor:

Berliner Studienreihe zur Mathematik. Heldermann Verlag, Lemgo, since 2004;

Series on Analysis, Applications and Computation. World Scientific, Singapore, since 2005.

Editorial Board:

Complex Variables, Elliptic Equations. Taylor and Francis, since 1982;

Monograph and Surveys in Pure and Applied Mathematics, and Research Notes in Math. Series.Chapman and Hall/CRC-Press, since 1997;

International Society of Analysis, its Applications and Computation. Kluwer Academic Publisher, 1997–2004;

General Mathematics. Lucian Blaga, Univ. of Sibiu, Romania, since 2001;

Journal of Applied Functional Analysis. NOVA Publ. Inc, 2004–2014;

Journal of Analysis and Applications. SAS Intern. Publ., since 2005;

Advances in Algebra and Analysis. Urmi Scientific Vision, since 2005;

International Journal of Mathematics and Applications (IJMA). Global Research Publ. and Serials Pupl. India, since 2005;

International Journal of Mathematics and Mathematical Sciences (IJMMS). Hindawi Publ. Co., 2006–2017;

Advances in Pure and Applied Mathematics. De Gruyter Verlag, Berlin, since 2010;

Eurasian Mathematical Journal. Eurasian National University, Astana, Kazakhstan, since 2010;

Complex Analysis and Operator Theory. Birkhäuser, Cham, since 2011;

Applied Mathematics and Mathematical Physics. Nauka, Moscow, since 2015.

V. Society Membership

Berlin Mathematical Society: Chairman 1984–1988, 1992–1996; Vice-Chairman 1988–1990, 1996–2000; Secretary 1990–1992, 2000–2002; 2004–2005;

International Society for Analysis, its Applications and Computation (ISAAC): Membership Secretary 1996–2001; President 2001–2005; Secretary and Treasurer 2005–2017;

Member of Russian Academy of Natural Sciences, Armenian Branch, since 2002;

Member of European Academy of Sciences, since 2004;

VI. Foreign Visiting Appointments

Guest Research Professor:

Univ. of Delaware, Jan./Feb. 1977, Feb./March 1983, Sept./Oct. 1986;

Peking Univ., Fudan Univ. (Shanghai), Zhongshan Univ. (Guangzhou), July-Sept. 1985;

Techn. Univ. Warzawa, Nov. 1986;

Zhongshan Univ. (Guangzhou), Logistical Engineering College (Chongqing), Sichuan Normal Univ. (Chendu), Peking Univ., Hebei Normal Univ. (Shijiazhuang), Dec. 1986–Feb. 1987;

Kyoto Sangyo Univ., Nov. 1999;

Ningxia Univ. (Jinchuan), Zhongshan Univ. (Guangzhou), Sept. 2000;

Wuhan Univ., August 2002;

Ningxia Univ., July 2004;

Steklov Math. Inst. Acad. Sci. USSR (Moscow), Math. Inst. Georgian Acad. Sci. (Tbilisi), Math. Inst. Tajik Acad. Sci. (Dushanbe), Aug./Sept. 1989;

Guest Professor:

Univ. of Hawaii (Fulbright Travel Grants), USA, Aug. 1982–Jan. 1983, Aug. 1992–March 1993;

Univ. of Assiut, Assiut and Qena, Egypt (DAAD short-time lectureship), Sept./Oct. 1991;

Univ. of Bucharest, Romania (Sokrates Lecturer, EU programme), March 1999;

Padova Univ., Italy (Minicorsi Lecturer), June 2000;

Simon Bolivar University, Caracas, Venezuela, May 2004;

L.N. Gumilyov Eurasian National University, Astana, Kazakhstan, October 2005;

Simion Stoilow Inst. of Math. of Romanian Acad. Bucharest, Romania, November 2006;

Delhi Univ., India (DAAD short time visitor-ship) Jan./Febr. 2007;

Simion Stoilow Inst. of Math. of Romanian Acad. Bucharest, Romania, Febr./March 2008;

Xinjiang University, Urumqi, Xinjiang, China, September 2016.

VII. Honors

Guest Professor Wuhan University, April 2002 to April 2005;

Begehr Special Issue. Appl. Analysis 73, 1-2, (1999);

Complex Variables, Theory Appl. 50, 7-11 (2005) special issues: A Tribute to Heinrich Begehr;

International Mathematical Journal of Analysis and its Applications 30(2010), issues 1 and 2, dedicated to Prof. Dr. Heinrich Begehr on the occasion of his 70th birthday, Part I and Part II;

Honorary Professor L.N. Gumilyov Eurasian National University, Astana, Kazakhstan (Oct. 6, 2005).

VIII. Scientific Administration

INTAS Project Coordinator: INTAS-93-10332: Complex and Clifford analysis for treating systems of partial differential equations, 1.10.1994-14.4.1996, 1.10.1997-30.9.1998;

NATO Country Co-director: NATO Advance Research Workshop: Topics in analysis and its applications, Yerevan, Armenia, 22.-25.8.2002;

AQAS Expert for evaluating BCs/MCs Curricula 2003;

Scientific Committee of EAS, Member, 2006–2009.

IX. Listed in:

Who's Who in the World;

Who's Who in Europe;

EU Who's Who;

Who's Who in Western Europe;

Who's Who in Science in Europe;

Who's Who in West-Germany;

Who is Who in der Bundesrepublik Deutschland;

European Who's Who Encyclopedia;

Wer ist Wer;

Kürschners Deutscher Gelehrtenkalender;

Men of Achievement;

Dictionary of International Biography;

Community Leaders of the World;

International Directory of Dishinguished Leadership;

The World of Learning;

European Biographical Directory 1991/92;

Who's Who in Science and Engineering 2nd ed.;

Biography International. A memorial document of men and women of achievement and distinction;

5000 Personalities of the World, ed. four;

2000 Outstanding Intellectuals of the 21st Century, 2nd ed.

X. Ph.D. Students Advised

1. **Wolfgang Reitberger** (1976): Untersuchung der analytischen Matrizenfunktionen mittels Reihenentwicklung nach Faber Polynomen (Analysis of analytic matrix functions via series development in Faber polynomials).
2. **Dieter Schmersau** (1977): Geometrische Untersuchungen der Betragsflächen holomorpher Funktionen (Geometrical analysis of the surfaces of absolute values of analytic functions).
3. **Heinz Jürgen Maibaum** (1977): Randintegralformeln in der komplexen Analysis (Boundary integral formulas in complex analysis).
4. **Dieter Klusch** (1978): Funktionalgleichungen für die Riemannsche, die Hurwitzsche und die Lipschitz-Lerchsche Zetafunktion (Functional equations for the Riemann, the Hurwitz and the Lipschitz-Lerch zeta-function). First advisor: Henrik L. Selberg.
5. **Shaker Ibrahim Sheboul** (from Jordan, 1978): Riemannsche Randwertprobleme bei pseudoparabolischen Differentialgleichungen (Riemann boundary value problems for pseudo-parabolic differential equations).
6. **Wolfgang Manntz** (1982): Simulation funktionentheoretischer Methoden für degenerierte Cauchy-Systeme (Simulation of function theoretic methods for degenerate Cauchy systems).
7. **Wolfram Koepf** (1984): Extrempunkte und Stützpunkte in Familien nicht verschwindender analytischer Funktionen (Extremal points and support points in families of non-vanishing analytic functions). First advisor: Jochen Becker.
8. **Jörg Witte** (1991): Polynomiale Differentialoperatoren in den Ableitungen nach der komplexen Variablen z und der komplex konjugierten Variablen $\overline{z}$ (Polynomial differential operators in the derivatives with respect to the complex variable z and the complex conjugate variable $\overline{z}$).
9. **Constantin Sakkas** (from Greece, 1994): Solution of parabolic singular perturbation problems by means of multigrid techniques.
10. **Mohamed Saad Mohamed Akal** (from Egypt, now Saudi Arabia, 1996): Boundary value problems for complex elliptic partial differential equations of higher order.
11. **Saad Zagloul Rida Ahmed** (from Egypt, 1996): Powers of differential operators and explicit polynomials.
12. **Sonnhard Graubner** (1997): Über die Optimierung von Polyzylindern bei Anwendung des Kontraktionsprinzips auf Differentialgleichungen (On the optimization of polydiscs in applying the contraction principle to differential equations).

13. **Reiner Rumpel** (1997): Über periodische Lösungen von singulaer gestörten Differentialgleichungssystemen (On periodic solutions of singularly disturbed systems of differential equations). First advisor: Roswitha März.
14. **Xing Li** (from China, 1999): Applications of doubly quasi-periodic boundary value problems in elasticity theory; http://www.diss.fu-berlin.de/diss/receive/FUDISS_thesis_000000000101
15. **Alip Mohammed** (from China, 2003): Boundary value problems of complex variables; http://www.diss.fu-berlin.de/diss/receive/FUDISS_thesis_000000000885
16. **Vu Thi Ngoc Ha** (from Vietnam, 2005): Integral representations in quaternionic analysis related to the Helmholtz operator; http//www.diss.fu-berlin.de/diss/receive/FUDISS_thesis_000000001591
17. **Andreas Krausz** (2005): Integraldarstellungen mit Greenschen Funktionen höherer Ordnung in Gebieten und Polygebieten (Integral representations with Green functions of higher order in domains and polydomains); http//www.diss.fu-berlin.de/diss/receive/FUDISS_thesis_000000001659
18. **Evgeniya Gaertner** (from Tajikistan 2006): Basic complex boundary value problems in the upper half plane; http//www.diss.fu-berlin.de/diss/receive/FUDISS_thesis_000000002129
19. **Heinz Alexander Maro Otto** (2006): Cauchy-Pompeiusche Integraldarstellungen in der Clifford Analysis (Cauchy-Pompeiu integral representations in Clifford analysis); http//www.diss.fu-berlin.de/diss/receive/FUDISS_thesis_000000002246
20. **Jahongir D. Mamjonov** (from Uszbekistan, 2007): Non-local boundary value problems for mixed type equation with non-smooth line of changing type with spectral parameter.
21. **Zhihua Du** (from China, 2008): Boundary value problems for higher order complex partial differential equations; http//www.diss.fu-berlin.de/diss/receive/FUDISS_thesis_000000003677
22. **Serik Altynbek** (from Kazakhstan, 2008): Some classes of complex partial differential equations of second order with Fuchs operator in the main part and boundary value problems for them; http//www.diss.fu-berlin.de/diss/receive/FUDISS_thesis_000000003769
23. **Madi Muratbekov** (from Kazakhstan, 2008): Approximate properties of solutions and spectrum character of some classes of mixed type equations; http//www.diss.fu-berlin.de/diss/receive/FUDISS_thesis_000000003767

24. **Tatsiana Vaitsiakhovich** (from Belarus, 2008): Boundary value problems for complex partial differential equations in a ring domain; http//www.diss.fu-berlin.de/diss/receive/FUDISS_thesis_000000003859
25. **Mariya Nemchenko** (from Kazakhstan, Al-Farabi Kazakh National University, Almaty, 2009): Explicit construction of Green function for a polyharmonic equation in the case of an even dimensional space (Russian);
26. **Saule Burgumbayeva** (from Kazakhstan, 2009): Boundary value problems for triharmonic functions in the unit disc; http//www.diss.fu-berlin.de/diss/receive/FUDISS_thesis_000000012636
27. **Ying Wang** (from China, 2011): Boundary value problems for complex partial differential equations in fan-shaped domains; http//www.diss.fu-berlin.de/diss/receive/FUDISS_thesis_000000021359
28. **Bibinur Shupeyeva** (from Kazakhstan, 2013): Some basic boundary value problems for complex partial differential equations in quarter ring and half hexagon; http//www.diss.fu-berlin.de/diss/receive/FUDISS_thesis_000000094596
29. **Sabit Igisinov** (from Kazakhstan, Al-Farabi Kazakh National University, Almaty, 2013): On the solvability and properties of solutions of a class of differential equations of mixed type in an unbounded domain (Russian)

XI. Publications

Books

1. H. Begehr, G.-C. Wen. *Boundary value problems for elliptic equations and systems.* Longman, Harlow, 1990, XII, 411 pp.

2. H. Begehr, R.P. Gilbert. *Transformations, transmutations, and kernel functions, I.* Longman, Harlow, 1992, 399 pp.

3. H. Begehr, R.P. Gilbert. *Transformations, transmutations, and kernel functions, II.* Longman, Harlow, 1993, 268 pp.

4. H. Begehr. *Complex analytic methods for partial differential equations. An introductory text.* World Sci., Singapore, 1994, 273 pp.

5. H. Begehr, G.-C. Wen. *Nonlinear elliptic boundary value problems and their applications.* Addison Wesley Longman, Harlow, 1996, IV + 269 pp.

6. H. Begehr, A. Dzhuraev. *An introduction to several complex variables and partial differential equations.* Addison Wesley Longman, Harlow, 1997, 454 pp.

Translations and Books Edited

1. *Ansprachen und Vorträge des Gedenkkolloquiums für Prof. Dr. Phil. Habil. Alexander Dinghas am 20. Juni 1975 an der Freien Universität Berlin.* Herausgegeben von H. Begehr. Freie Universität Berlin, Fachbereich Mathematik, I. Mathematisches Institut. Berlin, 1977, 56 pp.

2. *Helmut Pachale in memoriam. Ansprachen und Vorträge des Gedenkkolloquiums vom 14. Juli 1979 und der Trauerfeier vom 21. Juli 1978 an der Freien Universität Berlin.* Herausgegeben von H. Begehr. Freie Universität Berlin. Berlin 1980, 62 pp.

3. *Sitzungsberichte der Berliner Mathematischen Gesellschaft, 1972-1987.* Berlin, 1987.

4. A. Dzhuraev. *Systems of equations of composite type.* Translated from Russian by Lin Wei and H. Begehr. Longman, Harlow, 1989, XV, 333 pp.

5. *Partial differential equations with complex analysis.* Eds. H. Begehr, A. Jeffrey. Pitman Research Notes in Math. Ser. 22, Longman, Harlow, 1992, 214 pp.

6. *Partial differential equations with real analysis.* Eds. H. Begehr, A. Jeffrey. Pitman Research Notes in Math. Ser. 263, Longman, Harlow, 1992, 239 pp.

7. *Sitzungsberichte der Berliner Mathematischen Gesellschaft, 1988-1992.* Berlin, 1992.

8. Erhard Schmidt. *Vorlesungen über Differential- und Integralrechnung.* Unter Berücksichtigung der Übungen bearbeitet von Hans Pietsch. Herausgegeben von H. Begehr. Akademie Verlag, Berlin, 1992.

9. Applicable Analysis 45 (1992) dedicated to Prof. E. Meister on his 60th birthday. Eds. H. Begehr, R.P. Gilbert.

10. Complex Variables, Theory Appl. 19, 1-2 (1992), dedicated to Prof. E. Meister on his 60th birthday. Eds. H. Begehr, R.P. Gilbert.

11. Complex Variables, Theory Appl. 26, 1-2 (1994), dedicated to Prof. A. Dzhuraev on his 60th birthday. Eds. H. Begehr, R.P. Gilbert.

12. N.K. Bliev. *Generalized analytic functions in Besov spaces.* Translated from Russian by J.R. Radok and H. Begehr. Addison Wesley Longman, Harlow, 1997.

13. *Mathematik aus Berlin.* Herausgegeben von H. Begehr. Weidler Buchverlag Berlin, 1997, X, 309 S.

14. *Mathematik in Berlin. Geschichte und Dokumentation.* Herausgegeben von H. Begehr. Shaker Verlag, Aachen, 1998. 1. Halbband XII, 668 S., 2. Halbband XV, 668 S.

15. *Mathematics in Berlin.* Herausgegeben von H. Begehr, H. Koch, J. Kramer, N. Schappacher, E.-J. Thiele. Birkhäuser Verlag, Basel, 1998.

16. *Sitzungsberichte der Berliner Mathematischen Gesellschaft 1993-1996.* Berlin, 1998.

17. *Partial differential and integral equations.* Eds. H. Begehr, R.P. Gilbert, G.-C. Wen. Kluwer, Dordrecht, 1999.

18. *Complex methods for partial differential equations.* Eds. H. Begehr, A.O. Celebi, W. Tutschke. Kluwer, Dordrecht, 1999.

19. Proceedings of the 2nd International ISAAC Congress, Fukuoka, Japan, 1999. Vol 1, Vol 2. Eds. H. Begehr, R.P. Gilbert, J. Kajiwara. Kluwer, Dordrecht, 2000.

20. *100 Jahre Berliner Mathematische Gesellschaft 1901-2001.* Festschrift. Eds. M. Aigner, H. Begehr, H. Koch, G.M. Ziegler. Berlin, 2001.

21. *Sitzungsberichte der Berliner Mathematischen Gesellschaft 1997-2000.* Berlin, 2001.

22. *Analysis and Applications.* Eds. H. Begehr, R.P. Gilbert, M.W. Wong. Kluwer, Dordrecht, 2003.

23. *Progress in Analysis.* Proc. 3rd Intern. ISAAC Congress, Vol. I, Vol. II. Eds. H. Begehr, R.P. Gilbert, M.W. Wong. World Sci., Singapore, 2003.

24. *Topics in Analysis and its Applications.* Eds. G. Barsegian, H. Begehr. NATO Sci. Series II, 147, Kluwer, Dordrecht, 2004.

25. *Complex Analysis, Differential Equations and Related Topics.* ISAAC Conf., Yervan, Armenia, 2002. Eds. G. Barsegian, H. Begehr, A. Nersessian, H. Ghazaryan. Nat. Acad. Sci. Armenia, Yerevan, 2004.

26. *Advances in Analysis.* Proc. 4th Intern. ISAAC Congress, Toronto 2003. Eds. H. Begehr, R.P. Gilbert, M.E. Muldoon, M.W. Wong. World Sci., Singapore, 2005.

27. *Special Issue: A Tribute to Guochun Wen*, Guest Editor H. Begehr, Complex Variables and Elliptic Equations 51(2006), Nos. 8–11.

28. *Snapshots in Applied Complex Analysis.* Proc. of Workshop Recent Trends in Appl. Complex Anal. Middle East Tech. Univ. Ankara 2004. Eds. H. Begehr, O. Celebi, R.P. Gilbert. JAFA 2, 1-3 (2007).

29. *Special Issue: A Tribute to Jianke Lu*, Guest Editors H. Begehr and Jinyuan Du, Complex Variables and Elliptic Equations 52(2007), Nos. 10–11 .

30. *More Progress in Analysis.* Proc. 5th Intern. ISAAC Congress, Catania 2005. Eds. H. Begehr, F. Nicolosi. World Sci., Singapore, 2009.

31. *Further Progress in Analysis.* Proc. 6th Intern. ISAAC Congress, Ankara 2007. Eds. H. Begehr, O.Celebi, R.P. Gilbert, World Sci., Singapore, 2009.

32. *Special Issue: A Tribute to Prof. Dr. C. Andreian Cazacu on the Occasion of her 80th Birthday.* Guest Editors M. Cristea and H. Begehr, Complex Variables and Elliptic Equations 55(2010), Nos. 1–3.

33. S.A. Abdymanapov, A.B. Tungatarov *Some classes of elliptic systems in the plane with singular coefficients.* Translated from Russian by H. Begehr. Bilim, Almaty, 2010.

34. *Special Issue: Complex and Real Analysis and Applications, in Honor of Professor Robert P. Gilbert on the Occasion of his 80th birthday.* Eds. Y.S. Xu, A. Pankov, H. Begehr, Complex Variables and Elliptic Equations 57(2012), Nos. 2-4.

35. *Special Issue: In Honor of Professor A. Okay Çelebi on the Occasion of his 70th Birthday.* Guest Editors H. Begehr, R.P. Gilbert, M. Lanza de Cristoforis, Complex Variables and Elliptic Equations 58(2013), No. 4.

36. *Mathematics and Computing, Third Intern. Conf., ICMC 2017, Haldia, India, Jan. 17–21, 2017, Proc.*, D. Giri, R.N. Mohapatra, H. Begehr, M.S. Obaidat (eds.). Comm. in Computer and Information Science 655, Springer, Singapore, 2017, XX, 424 p., ISBN 978-981-10-4641-4 (soft cover), 978-981-10-4642-1 (ebook).

37. *Special Issue: Complex Partial Differential Equations and Higher Dimensional Versions.* Guest Editors H. Begehr, A.O. Çelebi, T. Kalmenov, A. Meziani, Complex Variables and Elliptic Equations 62(2017), No. 10.

Research Papers

1. H. Begehr. *Zur Nullpunktabhängigkeit der Nevanlinnaschen Defekte.* Math. Z. 106 (1968), 374-378.

2. H. Begehr. *Beitrag zum Satz von Picard-Borel-Nevanlinna auf Riemannschen Flächen.* Dissertation. Berlin 1968, 55 pp.

3. H. Begehr. *Über Defektbegriffe in der Theorie der meromorphen Funktionen.* Math. Z. 116 (1970), 349-354.

4. H. Begehr. *Zur Wertverteilung approximativ analytischer Funktionen.* Habilitationsschrift. Berlin 1970, 43 pp.

5. H. Begehr. *Zur Wertverteilung approximativ analytischer Funktionen.* Arch. Math. (Basel) 23 (1972), 41-49.

6. H. Begehr. *Die logarithmische Methode in der Wertverteilungstheorie pseudoanalytischer Funktionen.* Ann. Acad. Sci. Fenn. Ser. AI, 549 (1973), 17 pp.

7. H. Begehr. *Das Schwarzsche Lemma und verwandte Sätze für pseudoanalytische Funktionen.* Function theoretic methods in differential equations. Research Notes in Mathematics. Pitman, London - San Francisco - Melbourne, 11-21 (1976).

8. H. Begehr. *Über beschränkte verallgemeinerte analytische Funktionen.* An. Stiint. Univ. Iasi, 20 (1974), 295-303.

9. H. Begehr. *Eine Bemerkung zum Maximumprinzip für morphe Funktionen mehrerer komplexer Veränderlichen.* Math. Nachr. 69 (1975), 133-136.

10. H. Begehr, R.P. Gilbert. *Über das Randwert-Normproblem für ein nichtlineares elliptisches System.* Function Theoretic Methods in Part. Diff. Eqs., Darmstadt 1976. Lecture Notes in Math. 561, Springer Verlag, Berlin etc., 1976, 112-122.

11. H. Begehr, R.P. Gilbert.*Randwertaufgaben ganzzahliger Charakteristik für verallgemeinerte hyperanalytische Funktionen.* Applicable Anal. 6 (1977), 189-205. Abstract: Appl. Anal. 6 (1977), 164.

12. H. Begehr. *Boundary value problems for mixed kind systems of first order partial differential equations.* Third Roumanian Finnish Seminar on Complex Analysis, Bucharest 1976. Lecture Notes in Math. 743, Springer Verlag, Berlin etc., 1979, 600-614.

13. H. Begehr, R.P. Gilbert. *Das Randwert-Normproblem für ein fastlineares elliptisches System und eine Anwendung.* Ann. Acad. Sci. Fenn. AI 3 (1977), 179-184.

14. H. Begehr. *Randwertaufgaben für elliptische und für zusammengesetzte Systeme partieller fastlinearer Differentialgleichungen erster Ordnung.* Komplexe Analysis und ihre Anwendungen auf partielle Differentialgleichungen. Martin-Luther-Universität, Halle-Wittenberg, Wissenschaftliche Beiträge 1977/27, 6-10.

15. H. Begehr, R.P. Gilbert. *On Riemann boundary value problems for certain linear elliptic systems in the plane.* J. Diff. Equ. 32 (1979), 1-14.

16. H. Begehr, R.P. Gilbert. *Piecewise continuous solutions of pseudoparabolic equations in two space dimensions.* Proc. Roy. Soc. Edinburgh 81A (1978), 153-173.

17. H. Begehr. *Topics in Complex Analysis.* Four lectures given at the University of Delaware in January and February 1977. Institute for Mathematical Sciences, Univ. of Delaware, Newark, Delaware, USA 1977, 49 pp.

18. H. Begehr. *Alexander Dinghas in memoriam.* Jber. Dt. Math.-Verein. 81 (1979), 153-176.

19. H. Begehr, G.C. Hsiao. *On nonlinear boundary value problems of elliptic systems in the plane.* Ordn. part. diff. eq., Proc., Dundee 1980. Lecture Notes in Math. 846, Springer-Verlag, Berlin etc., 1981, 55-63.

20. H. Begehr, G.C. Hsiao. *Nonlinear boundary value problems for a class of elliptic systems.* Komplexe Analysis und ihre Anwendungen auf partielle Differentialgleichungen. Martin-Luther-Universität, Halle-Wittenberg. Wissenschaftliche Beiträge 1980, 90-102.

21. H. Begehr, G.N. Hile. *Nonlinear Riemann boundary value problems for a semilinear elliptic system in the plane.* Math. Z. 179 (1982), 241-261.

22. H. Begehr. *An approximation method for the Dirichlet problem of nonlinear elliptic systems in* $\mathbb{R}^r$. Rev. Roumaine Math. Pure Appl. 27 (1982), 927-934.

23. *Helmut Pachale zum Gedenken.* In: Helmut Pachale in memoriam. Ansprachen und Vorträge des Gedenkkolloquiums vom 14. Juli 1979 und der Trauerfeier vom 21. Juli 1978 an der Freien Universität Berlin. Herausgegeben von H. Begehr. Freie Universität Berlin. Berlin 1980, 9-14.

24. H. Begehr, G.C. Hsiao. *Nonlinear boundary value problems of Riemann-Hilbert type.* Contemporary Math. 11 (1982), 139-153.

25. H. Begehr. *Boundary value problems for analytic and generalized analytic functions.* Complex Analysis - Methods, Trends and Applications, ed. E. Lankau, W. Tutschke. Akademie-Verlag, Berlin, 1983, 150-165.

26. H. Begehr. *Value distribution theory.* Complex Analysis - Methods, Trends and Applications, ed. E. Lankau, W. Tutschke. Akademie-Verlag, Berlin, 1983, 59-67.

27. H. Begehr, R.P.Gilbert. *Boundary value problems associated with first order elliptic systems in the plane.* Contemporary Math. 11 (1982), 13-48.

28. H. Begehr, G.N. Hile. *Riemann boundary value problem for nonlinear elliptic systems.* Complex Variables, Theory Appl. 1 (1983), 239-261.

29. H. Begehr, G.C. Hsiao. *A priori estimates for elliptic systems.* Applied Math. Inst. Univ. Delaware, Technical Report No. 153-A (1984), Z. Anal. Anw. 6 (1987), 1-21.

30. H. Begehr, G.C. Hsiao. *The Hilbert boundary value problem for nonlinear elliptic systems.* Proc. Roy. Soc. Edinburgh 94 A (1983), 97-112.

31. H. Begehr. *Boundary value problems for systems with Cauchy Riemannian main part.* Complex Analysis. Fifth Roumanian Finnish Seminar, Bucharest, 1981. Lecture Notes in Math. 1014, Springer-Verlag, Berlin etc., 1983, 265-279.

32. H. Begehr. *Remark on Hilbert's boundary value problem for Beltrami systems.* Proc. Roy. Soc. Edinburgh 98 A (1984), 305-310.

33. H. Begehr, G.N. Hile. *Schauder estimates and existence theory for entire solutions of linear elliptic equations.* Proc. Roy. Soc. Edinburgh 100 A (1988), 101-123.

34. H. Begehr, R.P. Gilbert. *Hele-Shaw type flows in* $\mathbb{R}^n$. Applied Math. Inst., Univ. Delaware, Technical Report No. 155 A (1984); Nonlinear Analysis 10 (1986), 65-86.

35. H. Begehr, R.P. Gilbert. *Non-Newtonian Hele-Shaw flows in* $n \geq 2$ *dimensions.* Applied Math. Inst. Univ. Delaware, Technical Report No. 156 A (1984); Nonlinear Analysis 11 (1987), 17-47.

36. H. Begehr. *Entire solutions of quasilinear pseudoparabolic equations.* Demonstratio Math. 18 (1985), 673-685.

37. H. Begehr. *Ganze Lösungen fastlinearer pseudoparabolischer Gleichungen.* Mathematica ad diem natalem septuagesimum quintum data. Festschrift Ernst Mohr zum 75. Geburtstag. Berlin. Universitätsbibliothek der TU Berlin, Abt. Publikationen, 1985, 15-22.

38. H. Begehr. *Eine Bemerkung zum nichtlinearen klassischen Satz von Cauchy-Kowalewski.* Math. Nachr. 131 (1987), 175-181.

39. H. Begehr. *Der Satz von Cauchy-Kowalewski für hyperanalytische Funktionen.* Z. Anal. Anw. 6 (1987), 43-47.

40. H. Begehr. *Optimale Kontrollprobleme für elliptische Systeme vom Beltrami und Douglis Typ.* Results in Math. 10 (1986), 25-39.

41. H. Begehr, G.-C. Wen. *The discontinuous oblique derivative problem for nonlinear elliptic systems of first order.* Rev. Roumaine Math. Pures Appl. 33 (1988), 7-19.

42. H. Begehr, G.-C. Wen. *A priori estimates for the discontinuous oblique derivative problem for elliptic systems.* Math. Nachr. 142 (1989), 307-336.

43. H. Begehr, R.P. Gilbert. *Pseudohyperanalytic functions.* Complex Variables, Theory Appl. 9 (1988), 343-357.

44. H. Begehr. *Boundary value problems for Beltrami equations.* J. Hebei Normal Univ. Nat. Sci. Ed. 3 (1987), 37-42 (Chinese).

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