

## Hans-Dieter Alber

### *List of Publications*

- [1] Die Greensche Funktion für ein periodisches Problem aus der Beugungstheorie. *Methoden Verfahren Math. Phys.* **16** (1976), 45–68.
- [2] Ein quasiperiodisches Randwertproblem für die Helmholtzsche Schwingungsgleichung bei verschiedenen Ausstrahlungsbedingungen. PhD thesis; TH Darmstadt 1976.
- [3]<sup>\*)</sup> A quasi-periodic boundary value problem for the Laplacian and the continuation of its resolvent. *Proc. Roy. Soc. Edinburgh* **82A** (1979), 251–272.
- [4] Estimates for the asymptotic behaviour of solutions of the Helmholtz equation, with an application to second order elliptic differential operators with variable coefficients. *Math. Z.* **167** (1979), 213–226. <http://dx.doi.org/10.1007/BF01174802>
- [4a] Erratum: Estimates for the asymptotic behavior of solutions of the Helmholtz equation, with an application to second order elliptic differential operators with variable coefficients. *Math. Z.* **209** (1992), 317–318. <http://dx.doi.org/10.1007/BF02570837>
- [5] Reflection of singularities of solutions to the wave equation and the leading singularity of the scattering kernel. *Proc. Roy. Soc. Edinburgh* **86A** (1980), 235–242.
- [6] Properties and global existence of solutions to some classes of quasi linear hyperbolic systems. Preprint No. 376, Sonderforschungsbereich 72, Universität Bonn 1980.
- [7] Justification of geometrical optics for non-convex obstacles. *J. Math. Anal. Appl.* **80** (1981), 372–386.
- [8] Zur Hochfrequenzasymptotik der Lösungen der Schwingungsgleichung — Verhalten auf Tangentialstrahlen. Habilitation thesis; Universität Bonn 1982.
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- [10] Geometrische Optik, geometrische Theorie der Beugung und ihre geschichtliche Entwicklung. Preprint Nr. 10 (Vorlesungsreihe), Sonderforschungsbereich 72, Universität Bonn 1982.
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- [12] Convergence of geometrical optics approximations if tangential rays of higher order are present. In: G.F. Roach (Editor), University of Strathclyde Seminars in Applied Mathematical Analysis/Vibration Theory. Shiva, Nantwich 1982, 157–165.

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<sup>\*)</sup>This paper is based in essential parts on the results of [2].

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- [16] Iteration procedures for the calculation of wave propagation in anisotropic, inhomogeneous media. *ZAMM* **64** (1984), T347–T349.
- [17] Calculation of wave propagation by the WKB-method. In: G.F. Roach (ed): University of Strathclyde Seminars in Applied Mathematical Analysis: Classical Scattering. Shiva, Nantwich 1984, 13–22.
- [18] A local existence theorem for the quasilinear wave equation with initial values of bounded variation. In: B.D. Sleeman, J.R. Jarvis (Editors): Ordinary and partial differential equations. Proceedings Dundee 1984, Lecture Notes in Mathematics 1151. Springer, Berlin 1985, 9–24. <http://dx.doi.org/10.1007/BFb0074710>
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