

List of publications by Daisuke Fujiwara

Research papers:

1. A characterization of exponential distribution semi-groups. J. of the Math. Soc. Japan, vol.18 (1966), 267-274.
2. Concrete characterization for the domain of fractional powers of some elliptic differential operators of the second order. Proc. Japan Acad., vol.43 (1967), 82-86.
3. The asymptotic formula for the trace of elliptic operators on compact manifold, Proc. Japan Acad., vol.43 (1967), 426-428.
4. On a special class of pseudo-differential operators, J. of the Faculty of Sci. Univ. of Tokyo, vol.14 (1967), 221-249.
5. On the asymptotic formula for the Green operators of elliptic operators on compact manifolds, J. Fac. Sci. Univ. Tokyo, vol.14 (1967), 251-283.
6. On an analytic index formula for elliptic operators, Proc. Japan Acad., vol.44 (1968), 147-150.
7. L^p -theory for characterizing the domain of the fractional powers of $-\Delta$ in the half space, J. Fac. Sci. Univ. of Tokyo, vol.15 (1968), 169-177.
8. On the asymptotic behaviour of the Green operators for elliptic boundary problems and the pure imaginary powers of some second order operators, J. Math. Soc. Japan, vol.21 (1969), 481-555.
9. On some homogeneous boundary value problems bounded below, Proc. Japan Acad., vol.45 (1969), 228-232.
10. (With Norio Shimakura) Sur les problèmes aux limites stablement variationnels, J. de Math. Pure et Appl, tom.49 (1970), 1-28.
11. On some homogeneous boundary value problems bounded below, J. Fac. Sci. Univ. Tokyo, vol.17 (1970), 123-152.
12. (With Koichi Uchiyama) On some dissipative boundary value problems for the Laplacian, J. Math. Soc. Japan, vol.23 (1971), 625-635.
13. A relative Hodge-Kodaira decomposition, J. Math. Soc. Japan, vol.24 (1972), 609-637.
14. An approximate positive part of a self-adjoint pseudo-differential operators. 1, Osaka J. of Math., vol.11 (1974), 265-281. 2 ibid 283-293.
15. Fundamental solution of partial differential operators of Schrodinger's type (I), Proc. Japan Acad., vol.50 (1974), 566-569. (II) The space time approach, Proc. Japan Acad., vol. 50 (1974), 699-701.

16. On the boundedness of integral transformations with highly oscillatory kernels, Proc. Japan Acad., vol.51 (1975), 96-99.
17. (With Kenji Asada), On the boundedness of integral transformations with rapidly oscillatory kernels, J. Math. Soc. Japan, vol.27 (1975), 628-639.
18. A construction of fundamental solution of Schrodinger's equation on the sphere. J. Math. Soc. Japan, vol.28 (1976), 483-505.
19. (With Kazuaki Taira) On some non-coercive boundary value problems for the Laplacian. J. Fac. Sci. Univ. Tokyo, vol. 23 (1976) pp343-367.
20. A global version of Eskin's theorem, J. Fac. Sci. Univ. Tokyo, vol.24 (1977), 327-340.
21. (With Hiroko Morimoto) An L_r -theorem of the Helmholtz decomposition of vector fields, J. Fac. Sc. Univ. Tokyo, vol.24 (1977), 685-700.
22. Fundamental solution of partial differential operator of Schrodinger type III, Proc. Japan Acad. vol. 54 (1978), 215-220.
23. (With Masawo Tanikawa and Shukiti Yukita) The spectrum of the Laplacian and boundary perturbation (I) Proc. Japan Acad. vol.54 (1978), 87-91.
24. (With Shin Ozawa) The Hadamard variational formula for the Green function of some normal elliptic boundary value problems, Proc. Japan Acad., vol.54 (1978), 215-220.
25. (With Kenji Asada) On some oscillatory integral transformations in $L^2(R^n)$, Japanese J. Math., vol.4 (1978), 299-361.
26. (With Kenji Asada) On some oscillatory integral transformations in $L^2(R^n)$, Bull. of Chiba Keizai college, NO.1 (1977), 25-42.
27. A construction of the fundamental solution for the Schrodinger equations, Proc. Japan Acad., vol.60 (1979), 10-14.
28. A construction of the fundamental solution for the Schrodinger equations. J. d'Analyses Math., vol.35 (1979), 41-96.
29. A remark on the Hadamard variational formula, Proc. Japan Acad., vol.60 (1979), 180-184.
30. On a nature of convergence of some Feynman path integrals. Proc. Japan Acad., vol.60 (1979), (I) 195-200, (II) 273-277.
31. (With Koichi Uchiyama) Cotangential decomposition of the sheaf D'/E , Proc. Japan Acad., vol.49 (1973), 403-406.
32. Remarks on convergence of Feynman path integrals, Duke Math. J., vol.47 (1980), 559-600.
33. An approximate positive part of an essentially self-adjoint pseudo-differential operator, Proc. Japan Acad., vol.57 (1981), (I) 1-6.

34. (with Hideki Omori) An example of globally hypoelliptic operator. *Hokkaido Math. J.*, vol.12 (1983), 293-297.
35. Remarks on convergence of Feynman path integrals, *Lecture notes in control and information sci.*, NO.49 (1982), 40-48. (Theory and application of random fields, edited by G. Kallianpur).
36. A construction of approximate positive parts of essentially self-adjoint pseudo-differential operators. *Comm. Pure Appl Math.*, vol.37 (1984), 101-147.
37. (With Syoichiro Takakuwa) A varifold solution to the nonlinear equation of motion of a vibrating membrane, *Kodai Math. J.*, vol.9 (1986), 84-116.
38. A remark on Taniguchi-Kumanogo theorem for product of Fourier integral operators. *Lecture Notes in Math.*, NO.1256 (1987), 135-153.
39. The Feynman path integral as an improper integral over the Sobolev space. *Proc. of "Journée equations aux dérivées partielles, Saint Jean de Mont 1990"*, *Société Math. France* (1990) XIV, 1-15.
40. The Stationary phase method with an estimate of the remainder term on a space of large dimension. *Nagoya Math. J.*, vol.124 (1991), 61-97.
41. Some Feynman path integrals as oscillatory integrals over a Sobolev manifold. Preprint (1991).
42. Some Feynman path integrals as oscillatory integrals over a Sobolev space, *Proceedings of functional Analysis and related topics Kyoto*, *Lecture notes in Math.* 1540 39-53, (1993) Springer.
43. The Stationary phase method with an estimate of the remainder term on a space of large dimension. *Advanced Studies in Pure Math.* 23, *Spectral and Scattering Theory and applications* (1994) p57-67. *Mathematical Society of Japan*.
44. Stationary phase method with an estimate of the remainder term over a space of large dimension. *Spectral and scattering theory*, (Edited by M. Ikawa), *Lecture notes in pure and applied mathematics*, vol. 161 *Marcel Decker*, New York, 1994. pp 1-14.
45. The stationary phase method with remainder estimate as dimension of the space goes to ∞ . – *Operator theory advances and applications*, – *Partial Differential Operators and Mathematical Physics* edited by M. Demuth and B.W.Schulze–, *Birkhauser* (1995),135-140.
46. (with Tetsuo Tsuchida), The time slicing approximations of the fundamental solution for the Schurödinger equation with electromagnetic fields. *J. Math. Soc. Japan*, vol.49, 1997, pp 299-327.
47. (with Naoto Kumano-go & Kazuo Taniguchi), A proof of estimate of Kumanogo-Taniguchi type for multiproduct of Fourier integral operators, *Funkcialaj Ekvacioj* vol. 40, 1997, pp459-470.

48. (with Naoto Kumano-go), Smooth functional derivatives in feynman path integrals by time slicing approximation. Bulletin des Sciences Mathématiques, tom 129 (2005). pp57-79.
49. (with Naoto Kumano-go), An improved remainder estimate of stationary phase method for some oscillatory integrals over a space of large dimension. Funkcialaj Ekvacioj vol. 49 (2006), pp.50-86.
50. (with Naoto Kumano-go), The second term of semi-classical asymptotic expansion for Feynman path integrals with integrand of polynomial growth. J. Math. Soc. Japan, vol. 58 (2006), pp. 837-867.
51. (with Naoto Kumano-go), Phase space Feynman path integrals via piecewise characteristic paths and their semiclassical approximations. Bulletin des Sciences Mathématiques, tom 131 (2007).

Books

1. Asymptotic methods in theory of linear partial differential equations I and II.(In Japanese). Iwanami shoten (1976)
2. Mathematical method for Feynman path integrals – time slicing approximation–(in Japanese), Springer Verlag Tokyo, 1999, pp1-277.