1. Record Nr. UNINA9910751397103321 Autore Comech Andrew **Titolo** Partial Differential Equations and Functional Analysis: Mark Vishik: Life and Scientific Legacy / / edited by Andrew Comech, Alexander Komech, Mikhail Vishik Cham:,: Springer International Publishing:,: Imprint: Birkhäuser,, Pubbl/distr/stampa 2023 3-031-33681-X ISBN Edizione [1st ed. 2023.] 1 online resource (334 pages) Descrizione fisica Collana Trends in Mathematics, , 2297-024X Altri autori (Persone) KomechAlexander VishikMikhail Disciplina 515.35 515.353 Soggetti Differential equations Functional analysis Mathematical physics **Differential Equations Functional Analysis** Mathematical Physics Equacions en derivades parcials Anàlisi funcional Llibres electrònics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Intro -- Acknowledgments -- Introduction -- Contents -- Part I Memoirs -- Notes About My Father -- Mark Iosifovich and Asia Moiseevna: Random Reminiscences -- Meetings with Mark Iosifovich Vishik -- 1 Stefan Banach -- 2 Ivan Georgievich Petrovsky -- 3 Jacques-Louis Lions and Jean Leray -- 4 Asya Moiseevna Guterman --Reference -- My Scientific Advisor Mark Iosifovich Vishik -- M. I. Vishik in My Life -- References -- Un Grand Mathématicien, le Professeur Vishik -- A Great Mathematician, Professor Vishik -- Recollections of a

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Sommario/riassunto

Mark Vishik was one of the prominent figures in the theory of partial differential equations. His ground-breaking contributions were instrumental in integrating the methods of functional analysis into this theory. The book is based on the memoirs of his friends and students, as well as on the recollections of Mark Vishik himself, and contains a detailed description of his biography: childhood in Lwów, his connections with the famous Lwów school of Stefan Banach, a difficult several year long journey from Lwów to Tbilisi after the Nazi assault in June 1941, going to Moscow and forming his own school of differential

equations, whose central role was played by the famous Vishik Seminar at the Department of Mechanics and Mathematics at Moscow State University. The reader is introduced to a number of remarkable scientists whose lives intersected with Vishik's, including S. Banach, J. Schauder, I. N. Vekua, N. I. Muskhelishvili, L. A. Lyusternik, I. G. Petrovskii, S. L. Sobolev, I. M. Gelfand, M. G. Krein, A. N. Kolmogorov, N. I. Akhiezer, J. Leray, J.-L. Lions, L. Schwartz, L. Nirenberg, and many others. The book also provides a detailed description of the main research directions of Mark Vishik written by his students and colleagues, as well as several reviews of the recent development in these directions.