Record Nr. UNINA9910847574203321 Autore Schütz Tobias **Titolo** Einstein at Work on Unified Field Theory [[electronic resource]]: The Five-Dimensional Einstein-Bergmann Approach / / by Tobias Schütz Cham:,: Springer Nature Switzerland:,: Imprint: Birkhäuser,, 2024 Pubbl/distr/stampa **ISBN** 3-031-52127-7 Edizione [1st ed. 2024.] Descrizione fisica 1 online resource (362 pages) Collana Einstein Studies, , 2381-5841;; 17 Disciplina 530.142 Soggetti Physics - History **Physics** General relativity (Physics) Gravitation History of Physics and Astronomy Conceptual Development in Physics General Relativity **Gravitational Physics** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Introduction -- Focus on Mathematics -- Einstein and Projective Geometry -- Different Pathways to the Generalization of Kaluza's Theory -- Einstein's Further Considerations on the Generalized Kaluza Theory -- Considerations on Delta Functions -- Methodological Reflections -- Conclusion. Sommario/riassunto This book meticulously examines over one hundred documents of research notes by Albert Einstein, many of which were previously unidentified, held in the archives of The Hebrew University of Jerusalem and the Einstein Papers Project at Caltech. Focused on Einstein's quest for a five-dimensional unified field theory of gravitation and electromagnetism, the analysis provides unique insights into his mathematical skills, thinking, and modus operandi. This academic exploration also investigates the role of mathematics in Einstein's theorizing with a special focus on projective geometry and delta

functions.