Record Nr. UNINA9910483748903321 Autore Musielak Dora Titolo Sophie Germain: Revolutionary Mathematician / / by Dora Musielak Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2020 3-030-38375-X **ISBN** Edizione [2nd ed. 2020.] Descrizione fisica 1 online resource (XVII, 254 p. 54 illus., 7 illus. in color.) Collana Springer Biographies, , 2365-0613 Disciplina 510.9 Soggetti Mathematics History **Physics** Acoustics History of Mathematical Sciences History and Philosophical Foundations of Physics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references and index. Unforgettable Childhood -- Lessons from l'École Polytechnique --Nota di contenuto Sophie's Sublime Arithmetica -- Chladni and His Acoustic Experiments -- Euler and the Bernoullis -- Germain and Her Biharmonic Equation --Experiments with Vibrating Plates -- Elasticity Theory After Germain --Germain and Fermat's Last Theorem -- Pensées de Germain -- Friends. Rivals, and Mentors -- List of Illustrations -- The Last Years --Unanswered Questions -- Princess of Mathematics -- Germain-Gauss Correspondence -- A Bibliography on Sophie Germain -- Illustration Credits.-Index. Sommario/riassunto Sophie Germain stood right between Gauss and Legendre, and both publicly recognized her scientific efforts. Unlike her female predecessors and contemporaries, Sophie Germain was an impressive mathematician and made lasting contributions to both number theory and the theories of plate vibrations and elasticity. She was able to walk with ease across the bridge between the fields of pure mathematics and engineering physics. Though isolated and snubbed by her peers,

Sophie Germain was the first woman to win the prize of mathematics from the French Academy of Sciences. She is the only woman who

contributed to the proof of Fermat's Last Theorem. Sophie Germain – Revolutionary Mathematician paints a rich portrait of the brilliant and complex woman, including the mathematics she developed, her associations with Gauss, Legendre, and other leading researchers, and the tumultuous times in which she lived. In this unique biography, Dora Musielak has done the impossibleshe has chronicled Sophie Germain's brilliance through her life and work in mathematics, in a way that is simultaneously informative, comprehensive, and accurate.