Record Nr. UNINA9910255445303321 Autore **Thomas Taylor** Titolo Technology meets research: 60 years of CERN technology: selected highlights / / editors, C. Fabjan...[et al.]; with members of the editorial group, Cristoforo Benvenuti...[et al.] and with important contributions from many other CERN experts Singapore, : World Scientific Publishing Co. Pte Ltd., ©2017 Pubbl/distr/stampa **ISBN** 981-4749-14-1 Descrizione fisica 1 online resource (485 p.): ill. (some col.) Collana Advanced series on directions in high energy physics; vol. 27 Altri autori (Persone) FabjanC. W BenvenutiCristoforo Disciplina 539.7/3 Soggetti Particles (Nuclear physics) - Research Particles (Nuclear physics) - Technological innovations Electronic books Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references. The 600 MeV Synchrocyclotron (SC): laying the foundation / Brian Nota di contenuto Allardyce and Giuseppe Fidecaro -- The Proton Synchrotron (PS): at the core of the CERN accelerators / Donald Cundy and Simone Gilardoni --The Intersecting Storage Rings (ISR): the first Hadron Collider / Christian Fabjan and Kurt Hubner -- The Super Proton Synchrotron (SPS): a tale of two lives / Niels Doble, Lau Gatignon, Kurt Hubner and Edmund Wilson -- The CERN antiproton programme: imagination and audacity rewarded / Vinod Chohan and Pierre Darriulat -- The Large Electron Positron collider (LEP): probing the standard model / Thomas Taylor and Daniel Treille -- The Large Hadron Collider (LHC): the energy frontier / Giorgio Brianti and Peter Jenni -- Data handling and communications / Frederic Hemmer and Pier Giorgio Innocenti --Knowledge and technology: sharing with society / Cristoforo Benvenuti, Christine Sutton and Horst Wenninger -- Managing the laboratory and large projects / Philippe Lebrun and Thomas Taylor -- R&D for the

Sommario/riassunto

"Big" science and advanced technology are known to cross-fertilize. This book emphasizes the interplay between particle physics and

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technology at CERN that has led to breakthroughs in both research and technology over the laboratory's first 60 years. The innovations, often the work of individuals or by small teams, are illustrated with highlights describing selected technologies from the domains of accelerators and detectors. The book also presents the framework and conditions prevailing at CERN that enabled spectacular advances in technology and contributed to propel the European organization into the league of leading research laboratories in the world. While the book is specifically aimed at providing information for the technically interested general public, more expert readers may also appreciate the broad variety of subjects presented. Ample references are given for those who wish to further explore a given topic."--