1. Record Nr. UNINA9910820946003321 Autore Austin Sam M. Titolo Up from nothing: the Michigan State University Cyclotron Laboratory / / Sam M. Austin; foreword by Lou Anna K. Simon East Lansing, Michigan: ,: Michigan State University Press, , 2015 Pubbl/distr/stampa ©2015 **ISBN** 0-9967252-2-9 Descrizione fisica 1 online resource (321 p.) Disciplina 539.733 Soggetti Cyclotrons - Michigan - East Lansing Cyclotrons Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references. Foreword -- About the author -- Glossary -- Chapter 1. FRIB: the Nota di contenuto improbable adventure -- Chapter 2. The opportunity and the will --Chapter 3. The MSU physics strategy, 1955-62 -- Chapter 4. Building the cyclotron laboratory, 1963-65 -- Chapter 5. Cyclotron laboratory research -- Chapter 6. The K50 era, 1965-79 -- Chapter 7. The K50 : its golden years, 1970-79-- Chapter 8. Beginning of the superconducting era -- Chapter 9. The midwestern collaboration --Chapter 10. The NSAC process and phase II -- Chapter 11. Making it all work -- Chapter 12. The K500 experimental program -- Chapter 13. The phase II project -- Chapter 14. The next step: coupled cyclotrons again -- Chapter 15. The next big thing -- Chapter 16. The RIA/FRIB competition: Argonne and NSCL/MSU -- Chapter 17. Looking back: building upon increasing strength -- Chapter 18. Looking forward : What's in it for us--the nation and society? -- Appendices -- Notes --Notes on sources -- Thanks and appreciation. Sommario/riassunto Up from Nothing is the story of the Michigan State University Cyclotron Laboratory and its growth from the appointment of a single individual in 1958 to when the university earned the right to build the Facility for Rare Isotope Beams (FRIB) in 2008. The cyclotron laboratory at MSU has

> been known for years as the best university nuclear physics laboratory in the United States, and perhaps in the world. But very few, even in its hometown of East Lansing, know how it achieved that status or why it

prospered when laboratories at many other famous universities faded. In this book Austin, a nuclear physicist who has been at the laboratory since the beginning of its ascent, gives us a remarkable story. It begins with an exceptional individual, Henry Blosser, who founded the laboratory, built a cyclotron accelerator of uniquely high precision, and recruited a team of nuclear physicists that used it to establish the laboratory's reputation. Its credibility led to a sequence of accelerators, each operating in a different sub?eld while continuing a tradition of forefront science, and to a laboratory culture that fostered the courage and foresight to compete for the FRIB in the face of daunting odds.