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Autore	Austin Sam M.
Titolo	Up from nothing : the Michigan State University Cyclotron Laboratory / / Sam M. Austin ; foreword by Lou Anna K. Simon
Pubbl/distr/stampa	East Lansing, Michigan : , : Michigan State University Press, , 2015 ©2015
ISBN	0-9967252-2-9
Descrizione fisica	1 online resource (321 p.)
Disciplina	539.733
Soggetti	Cyclotrons - Michigan - East Lansing Cyclotrons Electronic books.
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.
Nota di contenuto	Foreword -- About the author -- Glossary -- Chapter 1. FRIB : the 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.

2. Record Nr.	UNIORUON00020340
Titolo	PALESTINE the Arab-Israeli conflict / ed. by Russell Stetler; photographs by Jeffrey Blankfort
Pubbl/distr/stampa	San Francisco, : Ramparts Press, 1972 297 p., : ill. ; 20 cm
ISBN	08-7867-018-1
Classificazione	PAL IV
Soggetti	GUERRA ARABO-ISRAELIANA - Documentazione
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia

3. Record Nr.	UNINA9910822213303321
Autore	Alencar Marcelo S. <1957->
Titolo	Information theory // Marcelo S. Alencar
Pubbl/distr/stampa	New York : , : Momentum Press, , [2015] ©2015
ISBN	1-60650-529-7
Descrizione fisica	1 online resource (178 p.)
Collana	Communications and signal processing collection
Disciplina	003.54
Soggetti	Information theory Coding theory
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 (pages 139-146) and index.
Nota di contenuto	<p>1. Information theory -- 1.1 Information measurement -- 1.2 Requirements for an information metric --</p> <p>2. Sources of information -- 2.1 Source coding -- 2.2 Extension of a memoryless discrete source -- 2.3 Prefix codes -- 2.4 The information unit --</p> <p>3. Source coding -- 3.1 Types of source codes -- 3.2 Construction of instantaneous codes -- 3.3 Kraft inequality -- 3.4 Huffman code --</p> <p>4. Information transmission -- 4.1 The concept of information theory -- 4.2 Joint information measurement -- 4.3 Conditional entropy -- 4.4 Model for a communication channel -- 4.5 Noiseless channel -- 4.6 Channel with independent output and input -- 4.7 Relations between the entropies -- 4.8 Mutual information -- 4.9 Channel capacity --</p> <p>5. Multiple access systems -- 5.1 Introduction -- 5.2 The Gaussian multiple access channel -- 5.3 The Gaussian channel with Rayleigh fading -- 5.4 The noncooperative multiple access channel -- 5.5 Multiple access in a dynamic environment -- 5.6 Analysis of the capacity for a Markovian multiple access channel --</p> <p>6. Code division multiple access -- 6.1 Introduction -- 6.2 Fundamentals of spread spectrum signals -- 6.3 Performance analysis of CDMA systems -- 6.4 Sequence design --</p> <p>7. The capacity of a CDMA system -- 7.1 Introduction -- 7.2 Analysis of a CDMA system with a fixed number of users and small SNR -- 7.3</p>

CDMA system with a fixed number of users and high SNR -- 7.4 A tight bound on the capacity of a CDMA system --
8. Theoretical cryptography -- 8.1 Introduction -- 8.2 Cryptographic aspects of computer networks -- 8.3 Principles of cryptography -- 8.4 Information theoretical aspects of cryptography -- 8.5 Mutual information for cryptosystems --
Appendix A. Probability theory -- Set theory and measure -- Basic probability theory -- Random variables -- References -- About the author -- Index.

Sommario/riassunto

The book presents the historical evolution of Information Theory, along with the basic concepts linked to information. It discusses the information associated to a certain source and the usual types of source codes, the information transmission, joint information, conditional entropy, mutual information, and channel capacity. The hot topic of multiple access systems, for cooperative and noncooperative channels, is discussed, along with code division multiple access (CDMA), the basic block of most cellular and personal communication systems, and the capacity of a CDMA system. The information theoretical aspects of cryptography, which are important for network security, a topic intrinsically connected to computer networks and the Internet, are also presented. The book includes a review of probability theory, solved problems, illustrations, and graphics to help the reader understand the theory.
