



The  
American  
Physical  
Society

# Proceedings of the 1993 Particle Accelerator Conference

Volume 1 of 5  
Pages 1-747

Papers from the fifteenth biennial Particle Accelerator Conference, an international forum on accelerator science and technology held May 17-20, 1993, in Washington, D.C., organized by the Continuous Electron Beam Accelerator Facility (CEBAF), jointly sponsored by the Institute of Electrical and Electronics Engineers Nuclear and Plasma Sciences Society and the American Physical Society Division of Physics of Beams, and conducted with support from the U.S. Department of Energy, the National Science Foundation, and the Office of Naval Research.

**1993 IEEE Particle Accelerator Conference**

Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limits of U.S. Copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through the Copyright Clearance Center, 27 Congress Street, Salem, MA 01970. For other copying, reprint, or republications permission, write to the IEEE Copyright Manager, IEEE Service Center, 445 Hoes Lane, P.O. Box 1331, Piscataway, NJ 08855-1331. All rights reserved. Printed in the USA. Copyright © 1993 by The Institute of Electrical and Electronics Engineers, Inc.

IEEE Catalog Number: 93CH3279-7

Library of Congress Number: 88-647453

Additional copies of this publication are available from

ISBN Softbound: 0-7803-1203-1

Casebound: 0-7803-1204-x

Microfiche: 0-7803-1205-8

IEEE Service Center

445 Hoes Lane

Piscataway, NJ 08854-4150