



AOSOC 2000



**Applied  
Superconductivity  
Conference**

*Technology for the 21<sup>st</sup> Century*

Pre-Conference  
Booklet

**September 17 - 22, 2000**

Pavilion Convention Center • Virginia Beach, Virginia USA

## **1LC Accelerator Magnets I**

### **1LC01 Superconducting Quadrupoles for the Heavy Ion Fusion Integrated Research Experiment (IRE) & High Current Experiment (HCX)**

*J.H. Schultz, A. Radovinsky, B. Smith, C. Gung, R.J. Thome, R. Camille, MIT Plasma Science and Fusion Center, Cambridge MA; R.L. Myatt, Myatt Consulting Inc., Norfolk, MA ; R. Meinke, Advanced Magnet Laboratory, Palm Bay, FL; R.O. Bangerter, A. Faltens, Lawrence Berkeley Nat'l Laboratory, CA.*

### **1LC02 Magnet and Cryostat Configurations For a Multi-port Quadrupole Array**

*M. A. Green, R. O. Bangerter, Lawrence Berkeley National Laboratory.*

### **1LC03 Focusing Magnets for HIF based on racetracks**

*N. Martovetsky, R. Manahan, LLNL.*

### **1LC04 Superconducting Bending Magnets for the Superconducting Ring Cyclotron**

*Shiro Fujishima, Toshiharu Tominaka, Takeo Kawaguchi, Masahiro Okamura, Akira Goto, Jong-Wong Kim, Junichi Ohnishi, Yasushige Yano, RIKEN.*

### **1LC05 Superconducting Magnetic System of the Fast Cycling Intermediate Energy Ion Synchrotron**

*N.N. Agapov, H.G. Khodzhibagiyani, A.D. Kovalenko, V.A Mikhailov, A.A. Smirnov, A.Yu. Starikov, Joint Institute for Nuclear Research.*

### **1LC06 HERA Luminosity Upgrade Superconducting Magnet Production at BNL\***

*B. Parker, M. Anerella, J. Escallier, A. Ghosh, A. Jain, A. Marone, J. Muratore, A. Prodell, P. Thompson, P. Wanderer, BNL.*

### **1LC07 Cost Scaling Analysis of Large Warm-Bore Superconducting Quadrupoles**

*Joe Waynert Waynert, Los Alamos National Laboratory.*

### **1LC08 Mechanical structure analysis of a compact 6T cryogen-free superconducting wavelength shifter**

*Feng-Zone Hsiao, Ching-Shiang Hwang, Cheng-Hsiang Chang, Synchrotron Radiation Research Center.*

## **1LD Fusion Magnets I**

### **1LD01 Experimental Verification of the Temperature and Strain Dependence of the Critical Properties in Nb3Sn Wires**

*A. Godeke, H.J.G. Krooshoop, B. ten Haken, H.H.J. ten Kate, University of Twente, Faculty of Applied Physics, P.O. Box 217, 7500 AE Enschede, The Netherlands.*

### **1LD02 Thermal-Hydraulic Analysis of the Central Solenoid Insert Coil**

*Laura Savoldi, Luca Guazzotto, Roberto Zanino, Dipartimento di Energetica.*

### **1LD03 Validation of the CEA Electrical Network Model for the ITER Coils**

*D. Ciazynski, J.L. Duchateau, Association Euratom-CEA, CEA/Cadarache, France.*

### **1LD04 Eddy current and thermal analysis of the TF Model Coil during safety discharges**

*P. Hertout, J.L. Duchateau, A. Martinez, Association Euratom-CEA.*

### **1LD05 Current Distribution and Strain Influence on the Electromagnetic Performance of the Central Solenoid Model Coil**

*V. Galindo, D. Ciazynski, J.L. Duchateau, A. Martinez, Association EURATOM-CEA; G. Nishijima, N. Koizumi, Y. Takahashi, T. Ando, JAERI, NAKA, JAPAN.*

### **1LD06 Stability in a long length NbTi CICC**

*P. Bellucci, University of Rome ; S. Chiarelli, M. Ciotti, A. Della Corte, E. Di Ferdinando, P. Gislon, L. Muzzi, M. V. Ricci, M. Spadoni, S. Turtù, Associazione Euratom-Enea sulla fusione, C.E. Frascati, 00044-Frascati (Rome ), Italy.*

### **1LD07 AC Loss Measurement of 46kA-13T Nb3Sn Conductor for ITER**

*Yoshikazu Takahashi, Kumihiro Matsui, Kenji Nishii, Yoshihiko Nunoya, Noriaki Koizumi, Takaaki Isono, Toshinari Ando, Hiroshi Tsuji, Japan Atomic Energy Research Institute; Satoru Murase, Susumu Shimamoto, Tohoku University.*

### **1LD08 Conductors of the ITER Magnets**

*D. Bessette, N. Mitchell, E. Zapretina, H. Takigami, ITER JCT Naka Japan.*

## **Monday Oral Session (Pavilion Convention Center) 12:00pm - 1:00pm**

## **1LE Accelerator Magnets II**

### **1LE01 Performance of the LHC Final Design Full Scale Superconducting Dipole Prototypes (12:00pm)**

*Luca Bottura, Pierre Pugnati, Andrzej Siemko, Jos Vloegaert, Carlo Wyss, CERN.*

### **1LE02 Status of the LHC Inner Triplet Quadrupole Program at Fermilab (12:15pm)**

*J. Kerby, J. Carson, M. Lamm, T. Nicol, A. Nobrega, T. Peterson, P. Schlabach, J. Strait, A.V. Zlobin, Fermi National Accelerator Laboratory; R. Scanlan, Lawrence Berkeley National Laboratory.*

### **1LE03 Progress of LHC Low-Beta Quadrupole Magnet at KEK (12:30pm)**

*T. Shintomi, Y. Ajima, E. Burkhardt, N. Higashi, N. Kimura, T. Nakamoto, T. Ogitsu, N. Ohuchi, K. Tsuchiya, A. Yamamoto, High Energy Accelerator Research Organization - KEK.*

### **1LE04 Field Quality in Fermilab-built Models of Quadrupole Magnets for the LHC Interaction Region (12:45pm)**

*P. Schlabach, N. Andreev, T. Arkan, P. Bauer, R. Bossert, J. Brandt, D. Chichili, J. Carson, J. DiMarco, Fermilab; S. Caspi, Lawrence Berkeley National Laboratory.*

## **1LF Transformers II**

### **1LF01 Construction and Test of a 1 MVA-Class High-Tc Resonator Coil (12:00pm)**

*A. Godeke, O.A. Shevchenko, J.J. Rabbers, B. ten Haken, H.H.J. ten Kate, University of Twente, Faculty of Applied Physics, P.O. Box 217, 7500 AE Enschede, The Netherlands; C.J.G. Spoorenberg, SMIT Transformers B.V., Nijmegen, The Netherlands; P. Klein Schiphorst, SMIT Wire B.V., Nijmegen, The Netherlands; G.C. Damstra, University of Eindhoven, Eindhoven, The Netherlands.*

### **1LF02 Optimization of high-temperature superconducting power transformers (12:15pm)**

*Emmanuel Sissimatos, Gerd Harms, Bernd R. Oswald, University of Hanover - Institut für Elektrische Energieversorgung.*

### **1LF03 Progress In The Design of a 5-10 MVA Class HTS Transformer (12:30pm)**

*S.P. Mehta, N. Aversa, Waukesha Electric Systems, Waukesha, WI 53186-5937, USA; M.S. Walker, D.W. Hazelton, E.K. Moser, M.T. Gardner, Intermagnetics General Corporation, Latham, NY 12110-0461, USA; R.H. Jones, Rochester Gas and Electric Company, Rochester, NY 14649-0001, USA; B.W. McConnell, S.W. Schwenterly, Oak Ridge National Laboratory, Oak Ridge, TN 37831-6070, USA.*