| 2 | VOLUME 15 • No. 4 | TABLE OF CONTENTS  |    |
|---|-------------------|--|----|
|   | 3                 | <i>Director's Desk:</i><br>News from the User's Committee meeting in November  |    |
|   | 5                 | <i>Big Light:</i><br>Notes on the upcoming submission of the Free Electron<br>Laser proposal                                     |    |
|   | 6                 | Incoming EMR Director Stephen Hill reflects on his goals for the program   |    |
|   | 8                 | Progress continues on Series Connected<br>Hybrid project   |    |
|   | 9                 | Quantum oscillations determine Fermi surface of<br>superconducting LaFePO  |    |
|   | 10                | Team explores possible new treatments for traumatic brain injury   |    |
|   | 12                | Quantum magnetism thaws a spin ice   |    |
|   | 13                | A molecular slinky:<br>How a small peptide can help premature infants take<br>their first breaths                                |    |
|   | 17                | Highlights from Asilomar Conference on<br>Mass Spectrometry  |    |
|   | 18                | School year brings varied programming to CIRL  |    |
|   | 19                | Science Starts Here: Fatma Kaplan  |    |
|   |                   | Trying to reduce your carbon footprint? Sign up for an online subscription at http://www/mediacenter/publications/subscribe.aspx | )) |

Published by: National High Magnetic Field Laboratory 1800 East Paul Dirac Drive Tallahassee, FL 32310-3706

Tel: 850 644-0311 Fax: 850 644-8350 www.magnet.fsu.edu



## On the cover:

The superconducting split pair magnet, with a CICC sample discernable protruding vertically through its bore, being lowered into the cryostat in preparation for a test. See page 8 for more.

Director: GREG BOEBINGER Associate Director for Management and Adminstration: BRIAN FAIRHURST Director, Public Affairs: SUSAN RAY Editing and Writing: AMY MAST, SUSAN RAY Art Direction and Production: SAVOY BROWN

This document is available in alternate formats upon request. Contact Amy Mast for assistance. If you would like to be added to our mailing list, please write us at the address shown at left, call 850 644-1933, or e-mail winters@magnet.fsu.edu.