

# APS and INSPIRE

Erick Weinberg  
Fermilab May 6, 2009

# HEP and related fields

## Articles in 2008

	PRD		PRL	PRST-AB
HEP	1882		263	
Gravitation	533	}		
Cosmology	400		115	
Related Astrophysics	128			
Accelerators & Beams				119

# New at APS

PHYSICS --- “spotlighting exceptional research”

Viewpoints

Synopses

Trends

PRL Editors' Suggestions

Interest+Importance+Clarity

Physical Review Focus

Should INSPIRE note and link to highlighting  
and summaries of articles?

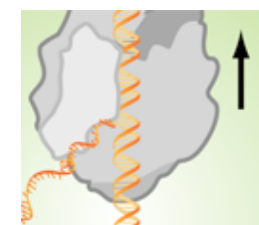
New copyright agreement --- enhanced author rights  
for derivative works



## **Viewpoint:** Cosmic light matter probes heavy dark matter

Bruce Winstein, Kathryn M. Zurek, Physics **2**, 37 (2009) – Published May 4, 2009

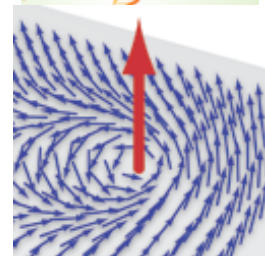
New results from the Fermi Gamma-Ray Space Telescope, the most precise to date in the energy range 20 GeV to 1 TeV, should help resolve whether cosmic rays composed of the lightest charged particles, i.e., electrons and positrons, come from dark matter or some other astrophysical source.



## **Viewpoint:** Keeping up with the noise

Ralf Metzler, Physics **2**, 36 (2009) – Published May 4, 2009

Faster does not mean more precise—a new view of how proteins diffuse and bind to a specific site on the DNA reassesses the role noise plays in the biochemical production line that creates biomolecules from genes.



## **Viewpoint:** A new twist in a ferromagnet

Carsten Timm, Physics **2**, 35 (2009) – Published May 4, 2009

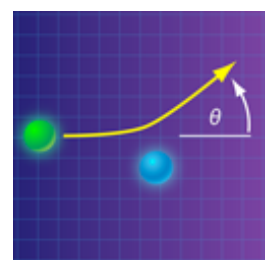
Transport measurements show evidence of a topologically nontrivial structure—a lattice of skyrmions—in intermetallic MnSi.



## **Synopsis:** Solitons in an ionic crystal

Published May 4, 2009

Neutron scattering measurements indicate that intrinsic localized modes are found in thermal equilibrium in NaI, a simple ionic crystal.



## **Synopsis:** Screening and the Coulomb interaction

Published May 4, 2009

How screening affects the Coulomb interaction has long been considered a solved problem, but an analysis indicates there is an error in the widely used analytical approach.

# APS and SPIRES Today

## APS provides metadata to SPIRES:

Title

Authors and affiliations

Journal, volume, issues, article identifier

Received, revised, and publication dates

Article type

DOI

PACS codes

Copyright information

Abstracts (for searching)

References

for: PRC, PRD, PRE, PRST-AB, PRL, RMP (complete backfiles)

## SPIRES links to APS abstract page:

Abstract

PDF link

cited papers

citing papers [from Crossref, not SPIRES]

1062

2635

# Future possibilities --- Ideas to discuss

Providing full-text XML to INSPIRE for enhanced searching

Allow linking from INSPIRE to either  
Abstract page  
PDF file (with authentication)

Provide API from INSPIRE so APS can take advantage of  
INSPIRE services (e.g., enhanced citing papers link)

Collaboration between APS and INSPIRE on author ID