

Tutorial SCIENCE
AMERICAN ASSOCIATION FOR THE ADVANCEMENT
OF SCIENCE

Cuprins

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1. Noțiuni introductive

SCIENCE ONLINE este o bază de date științifică ce conține publicațiile editate de prestigioasa societatea științifică American Association for the Advancement of Science.

2. Conținutul bazei de date SCIENCE

Baza de date Science Online conține revistele științifice editate de American Association for the Advancement of Science. Lista completă a revistelor o puteți găsi la: <http://www.sciencemag.org/journals>.

3. Primii pași în interfața SCIENCE:

3.1 Accesul în baza de date:

Accesul în baza de date se face la adresa: <http://www.sciencemag.org>.

3.2 Interfața bazei de date

Science Online oferă o interfață modernă, cu posibilități multiple de căutare și navigare în interiorul bazei de date. Pentru a accesa revistele SCIENCE utilizatorii pot fie să intre direct în reviste folosind butonul *Science Journals* (dreptunghiul albastru) fie să caute în reviste prin intermediul căutării simple (de tip *google*) (dreptunghiul galben) sau prin intermediul căutării avansate (dreptunghiul roșu). Utilizatorii pot căuta informația dorită doar în anumite reviste editate de Science (chenarul verde).

The screenshot shows the top navigation bar of the Science Online website. It includes links for AAAS.ORG, FEEDBACK, HELP, LIBRARIANS, NATIONAL INSTITUTE FOR PHYSICS AND NUCLEAR ENGINEERING, ALERTS, ACCESS RIGHTS, MY ACCOUNT, and SIGN IN. Below this is a banner for a webinar titled "Generating the best superresolution microscopy data: Finding the right tool for the right job" on July 29, 2015, sponsored by GE Healthcare. The main navigation area features the Science logo, a dropdown menu for "All Science Journals", a search bar with "Enter Search Term" and an "ADVANCED" button, and a "SUBSCRIBE" button. The main menu includes "NEWS", "SCIENCE JOURNALS" (highlighted with a blue box), "CAREERS", "MULTIMEDIA", and "TOPICS". A survey prompt asks, "Survey: Imagine unlimited funding! What revolutionary project would you propose?". On the right, there is an advertisement for "STAY PLUGGED IN" featuring a Science Podcast about Breast Cancer 20 Years After BRCA1 and More.

4. Efectuarea de căutări în SCIENCE ONLINE

4.1 Căutarea simplă

Funcția de căutare simplă permite căutarea unor cuvinte cheie (chenarul galben) fie în interiorul întregului conținut al bazei de date Science fie doar în interiorul anumitor reviste (chenarul verde) (în funcție de conținutul SCIENCE la care este instituția dvs. abonată).



4.2 Căutarea avansată

Funcția de căutare avansată permite o cautare mai detaliată a articolelor dorite. Astfel se pot face căutări în funcție de volumul și pagina la care se află articolul (chenarul galben), se pot accesa articole pornind de la DOI (pentru mai multe informații <http://www.sciencemag.org/site/misc/doi.xhtml>) (chenarul verde) și se pot face căutări după cuvinte cheie și nume de autor în întreg textul revistelor, în titlul articolelor și în abstract (chenarul albastru). Rezultatele căutării pot fi limitate temporal (chenarul roșu), dar și în funcție de tipul de articol dorit (chenarul negru).

Search by Citation: Volume: Page:

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Search by Keywords/Authors:

Words anywhere in the article:
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<input type="checkbox"/> Reviews, Perspectives & Essays	<input type="checkbox"/> AAAS News & Notes
<input type="checkbox"/> Editorials, Letters & Policy Forums	

4.3 Funcția de răsfoire (browse)

Pentru a vizualiza conținutul SCIENCE fără a efectua căutări se poate folosi funcția *Browse*. Astfel se accesează tab-ul *Science Journals* (chenar galben). Se poate alege vizualizarea numărului curent sau a arhivei revistei (chenarul verde) sau a cuprinsului revistei (chenarul roșu). Se pot vizualiza, de asemenea, care au fost cele mai descărcate articole SCIENCE în ultima zi, săptămână sau lună (chenar albastru).

Revista open access *Science Advances* este accesibilă și ea din această interfață (chenarul negru).

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Home > Science Journals

SCIENCE

CURRENT ISSUE ARCHIVE SCIENCE EXPRESS

17 JUL 2015, VOL. 349, #6245

VIROLOGY
Means to an end

SPECIAL SECTION
Rise of the Machines

MATERIALS SCIENCE
Looking at teeny tiny platinum particles

PHYSIOLOGY
Not that unusual after all

IMMUNOLOGY
Neutrophil NETs drive atherosclerosis

SCIENCE ADVANCES

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View Research

SCIENCE SIGNALING

IMMUNOLOGY
Adaptors fine-tune the inflammatory response

ANGIOGENESIS
Transglutaminase-2 blocks activity of a VEGF

CANCER
Reprogrammed cells form tumors in the GI tract

Current Issue
Previous Issues

ADVERTISMENT

STAY PLUGGED IN

Breast Cancer—20 Years After BRCA1 and More

with Science PODCAST

ADVERTISMENT

Webinar

Generating the best superresolution microscopy data: Finding the right tool for the right job

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Recent Highlights in Science

- Special section: Rethinking the global supply chain
- Science Podcast
- More from Science

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Special Issues

Submit Manuscript

日本語 (Japanese)

MOST DOWNLOADED ARTICLES FROM SCIENCE

TODAY PAST WEEK PAST MONTH

După ce am selectat vizualizarea cuprinsului avem opțiunea de a vizualiza doar anumite tipuri de articole (chenarul galben), de a vedea abstractul fiecărui articol în parte și de a salva articolele în contul personal (chenarul verde) și de a vizualiza articolul în format html sau pdf (chenarul roșu).

Home > Science Magazine > 17 July 2015

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17 JULY 2015
VOL 349, ISSUE 6245, PAGES 209-340

日本語 (Japanese)

- * Special Issue
- * This Week in Science
- * Editorial
- * Editors' Choice
- * In Brief
- * In Depth
- * Feature
- * Working Life
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Artificial Intelligence

Rise of the Machines
Jelena Stajic, Richard Stone, Gilbert Chin, and Brad Wible
Science 17 July 2015: 248-249.

Full Text Full Text (PDF)

News

ARTIFICIAL INTELLIGENCE
The synthetic therapist
John Bohannon

5. Vizualizarea documentelor

După ce am ajuns la articolul dorit îl putem vedea în diverse formate, putem vedea abstractul sau materialele însoțitoare (chenarul galben). Putem adăuga articolul la favorite, descărca citările, trimite articolul pe mail și vizualiza statisticile de descărcare ale articolului (chenarul roșu). O altă facilitate este aceea de a salva articolul în contul personal, facilitate prin care putem crea și contul personal (chenarul albastru). Putem alege să vizualizăm abstractul autorului sau sumarul editorului referitor la articol (chenarul verde).

Science Home | Current Issue | Previous Issues | Science Express | Science Products | My Science | About the Journal

Home > Science Magazine > 17 July 2015 > Jiang et al., 349 (6245): 283-286

Published Online June 11 2015
Science 17 July 2015:
Vol. 349 no. 6245 pp. 283-286
DOI: 10.1126/science.aaa1442

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RESEARCH ARTICLE

Blowing magnetic skyrmion bubbles

Wanjun Jiang¹, Pramey Upadhyaya², Wei Zhang¹, Guoqiang Yu², M. Benjamin Jungfleisch¹, Frank Y. Fradin¹, John E. Pearson¹, Yaroslav Tserkovnyak³, Kang L. Wang², Olle Heinonen^{1,4,5,6}, Suzanne G. E. te Velthuis¹, Axel Hoffmann^{1,7}

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ABSTRACT | EDITOR'S SUMMARY

The formation of soap bubbles from thin films is accompanied by topological transitions. Here we show how a magnetic topological structure, a skyrmion bubble, can be generated in a solid-state system in a similar manner. Using an inhomogeneous in-plane current in a system with broken inversion symmetry, we experimentally "blow" magnetic skyrmion bubbles from a geometrical constriction. The presence of a spatially divergent spin-orbit torque gives rise to instabilities of the magnetic domain structures that are reminiscent of Rayleigh-Plateau instabilities in fluid flows. We determine a phase diagram for skyrmion formation and reveal the efficient manipulation of these dynamically created skyrmions, including depinning and motion. The demonstrated current-driven transformation from stripe domains to magnetic skyrmion bubbles could lead to progress in skyrmion-based spintronics.

Magnetic skyrmions are topological spin textures that can be stabilized by Dzyaloshinskii-Moriya interactions (DMIs) (1-9) in chiral bulk magnets such as MnSi, FeGe, etc. Owing to their distinct vortex-like spin texture, skyrmions exhibit many fascinating features, including emergent electromagnetic fields, which enable their efficient manipulation (4, 5, 8-10). A particularly technologically interesting property is that skyrmions can be driven by a spin-transfer torque mechanism at a very low current density, which has been demonstrated at cryogenic temperatures (4, 5, 8, 10). Besides bulk chiral magnetic interactions, the interfacial symmetry breaking in heavy metal/ultrathin ferromagnet/insulator (HM/F/I) trilayers introduces an interfacial DMI (11-14) between neighboring atomic spins, which stabilizes Néel walls (cyclotoidal rotation of the magnetization

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[Magnetic bubbles with a twist](#)
Kürsten von Bergmann
Science 17 July 2015: 234-235.

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- 349/6245/283 (most recent)
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- Science Perspective by Bergmann
- More Information on Related Content

6. Contul personal

După ce am urmat calea descrisă mai sus putem crea contul personal la *Register for Free* (chenarul galben) sau, dacă avem deja un cont, îl putem accesa (chenarul verde).

A screenshot of a "User Login" form. It has a title "User Login" in red. Below the title are two input fields: "User Name" and "Password". There is a checkbox labeled "Remember me" and a link "Forgot your user/password?". At the bottom of the form is a red "SUBMIT" button.

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GO!

Odată creat contul îl vom putea folosi pentru a salva documentele, vizualiza istoricul căutărilor și a primi notificări atunci când se publică noi articole.