

なぜ国際科学広報をするのか

理研における2004年からの拡充期について

高エネルギー加速器研究機構 広報室 室長
科学技術広報研究会 会長
岡田小枝子
(前・理化学研究所広報室)

科学技術広報研究会

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科学技術広報研究会

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トップ

JACSTとは?

入会案内

関連リンク

Sitemap

科学技術広報研究会(JACST: Japan Association of Communication for Science and Technology)は、研究機関や大学などの広報担当者が、所属する組織の枠をこえて、広報活動における問題意識・課題点を共有し、それらを乗り越えて助け合い、共に成長していくことを目指したネットワークです。



[活動の紹介]

- TV制作会社の番組制作担当者に研究者紹介や最新の研究成果をアピールする活動を行っています。
- 広報担当者間で意見交換や勉強会を行っています。
- サイエンスアゴラなどで活動の紹介を行っています。

2008年の例「シルク・ド・サイエンス〜科学技術広報いろいろ〜」
研究機関や大学で行っているイベント、広報誌など、いろいろな広報手段を一堂に集めた企画です。

不正行為を報告 | 印刷用ページ | アクセス権を削除 | Powered By [Google 9.4.1](#)

| | |
|-------------------|--|
| 2011年9月27日 | イギリスの広報官の団体「Stempra」の「プレスオフィサーのためのガイドブック」を和訳しました |
| 2011年6月21日 | 第5回 TV制作会社へのPRプロジェクト |
| 2011年2月14日 | 第4回 TV制作会社へのPRプロジェクト |
| 2010年12月7日 | 第3回 TV制作会社へのPRプロジェクト |
| 2010年9月24日 | 海外 TV制作会社へのPRプロジェクト |
| 2010年9月16日 | 第2回 TV制作会社へのPRプロジェクト |
| 2010年6月14日 | 第1回 TV制作会社へのPRプロジェクト |
| 2009年10月31日～11月3日 | サイエンスアゴラ2009出版 |
| 2009年5月23日 | 第2回勉強会 研究者とメディアの関わりについて |
| 2008年11月22～24日 | サイエンスアゴラ2008 シルク・ド・サイエンス〜科学技術広報いろいろ〜 |
| 2008年8月3日 | 第1回勉強会 パブリックアウトリーチについて |
| 2007年12月26日 | 初代会 |
| 2007年10月23～25日 | サイエンスアゴラ2007「研究機関の広報の役割」(立ち上げの呼びかけ) |

| | |
|-----|--|
| 設立年 | 2007年 |
| 会員数 | 4750名 |
| 事務局 | 岡田 小枝子(理化学研究所) 嵯田 康嗣(理化学研究所) 清野 聖雄(理化学研究所) 廣江 真子(産業技術総合研究所) 植野 敏子(東京大学 先端科学技術研究センター) |

☆ 🔍

Search this site

などの広報担当者が、所属する組織の枠をこえて、広報活動におけ

る向上を目指す場とすることを目的としています。

1. 継続的な広報に関する自由な情報交換を行います。

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翻訳

理研における 国際広報の目的、対象、目標

理研

- ◆2017年に創立100周年
- ◆日本で唯一の自然科学の総合研究所
- ◆産総研とならび、日本で最大規模の研究機関

日本の代表的な研究機関！



目的

“言うまでもなく、資源の乏しいわが国によって立つところは科学技術の力です。今後、理研がわが国の中核的研究所として国際的存在感を示し続けるために何をなすべきでしょうか。”



野依良治理事長
(2003年着任)

“私たちは海外の優れた研究者を招く一方、理研で研鑽を積んだ人材を海外に送り出し、世界規模での頭脳循環の潮流を生む環境を整える必要があると考えています”

(RIKEN 2010-11 Annual Report 巻頭言より抜粋)

⇒ 理事長目標「PIの30%を海外からの研究者に！」

2004年時点で決まっていたこと

“英文広報コンテンツを拡充する！”

2004年時点で 決まっていなかったこと

◆英文広報コンテンツ拡充以外の戦略

◆対象範囲

岡田「重点地域はありますか？」

理事「全部」



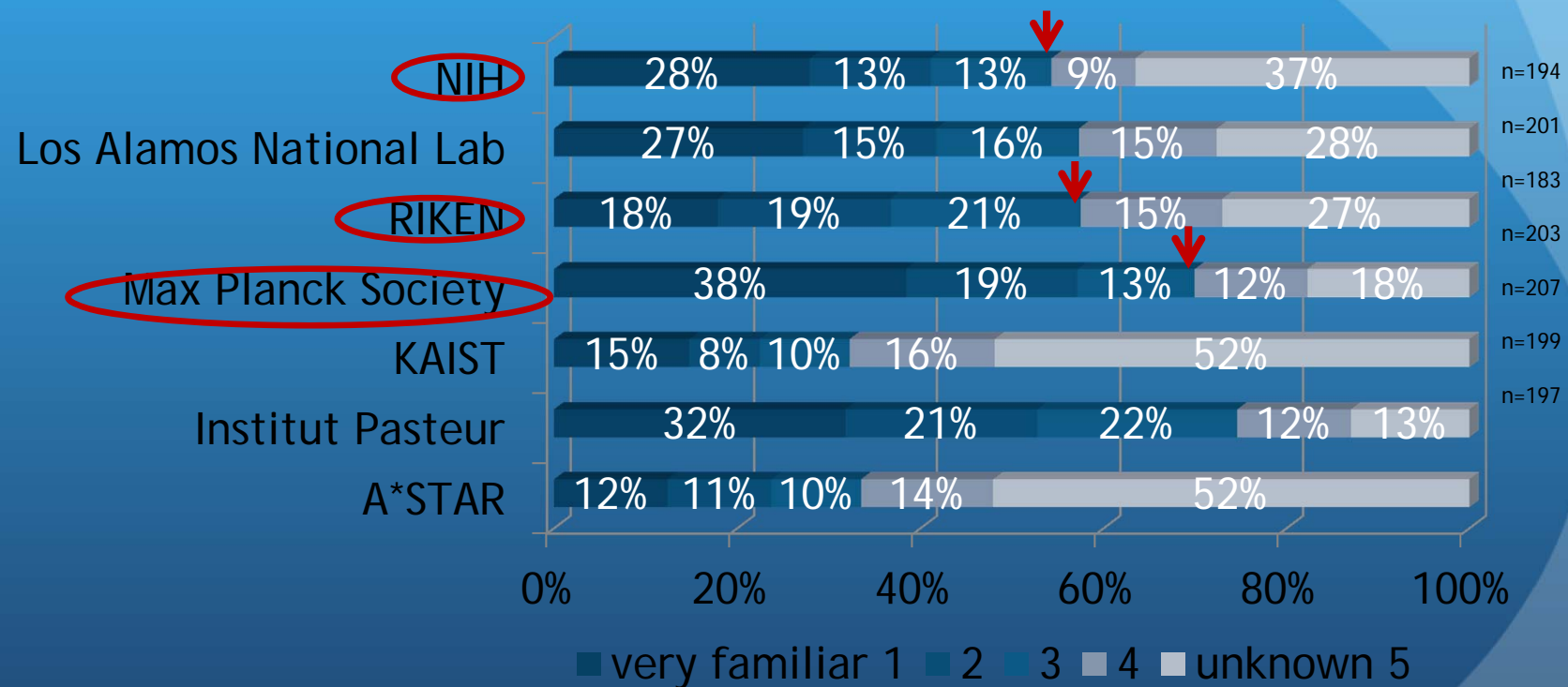
まずは英語コンテンツで届く範囲を対象

目標

優れた研究成果の紹介を通じて
知名度をマックスプランク並みに上げ
世界でもトップクラスの研究機関であると認識して
もらうこと

理研の国際的知名度

Please rate your awareness of the following institutions from 1 (very familiar) to 5 (totally unknown)



ESOF2010（トリノで開催）の
理研ブースで行ったアンケート調査より

対象

◆（直接的）将来理研で働こうと考えている、あるいは働く可能性がある若い研究者やチームリーダークラスの研究者

◆（間接的）マスメディア

- 研究者
- 研究協力関係を結ぶ可能性のある大学や研究機関
- 資金供与団体
- 各種賞の授与団体

(参考) マスメディアへの記事掲載が研究活動に及ぼす効果についての見聞

- ◆ アメリカでの調査：大学病院を持つ研究機関で、記事掲載数増加と病院の来院数に相関がある
- ◆ イギリス／ISIS広報室長：“研究者は、マスメディアによって最新の研究情報を知り、共同研究者探しに役だっているという調査がある”

Annual Meeting Reports

Does Press Coverage of Journal Articles Really Matter?

Moderator:
Patty Benkin
GeneReviews
Seattle, Washington

Speakers:
Ivan Oransky
The Scientist
Philadelphia, Pennsylvania

Ginger Pinholster
American Association for the
Advancement of Science
Washington, DC

Reporter:
Kathleen Kite-Powell
Emory University
Atlanta, Georgia

Journals commonly produce press releases on a few of their articles. If mass-media coverage draws attention to a journal article, more MDs and PhDs will read it, increasing the likelihood that they will subscribe, and advertiser visibility will improve. Those possibilities are important enough that journals use clipping services to monitor their presence in the press. When Ivan Oransky, deputy editor of *The Scientist*, looked for quantitative proof that increased citations result from extra journal publicity and press coverage, he found only two references: a 1991 Phillips study in the *New England Journal of Medicine*, cited 29 times, and a 2002 article by Korman in *Science Communication*, cited twice. Phillips's data, obtained during the 1978 New York Times strike, used a marked New England *Journal of Medicine* article that had no added publicity, because the paper wasn't distributed. That control was compared with coverage in a normal period. Publicity was found to be more important than co-marketing, as much as high citation levels in the first year were absent during the strike period. Korman's study followed New England

Journal of Medicine and other journal articles covered by 2 dozen newspapers, including the *New York Times*, and three major television networks. For 563 articles covered, 116 citations resulted. 2092 articles without coverage generated 90. Oransky's answer: Publicity works. If articles have press coverage, a citation will on effect often result.

Ginger Pinholster, of the American Association for the Advancement of Science (AAAS), publisher of *Science*, said that press outreach is important because its mission is to foster communication that advances science, serving the global community. AAAS distributes a weekly digest to more than 500 reporters, sends notices to 350 college press officers, and disseminates press releases via *EarthAlert!* (www.EarthAlert.org). Press coverage improves author, institution, and association member recruitment. Author recognition increases exposure to future collaborators and funders. Pinholster's Matt Lammiman was quoted regarding funding and the effect on his dean and institution: "I chalk up a lot of my success to that first graduate paper and its press coverage."

Mainstream print science journalism is declining, said Pinholster. When BBC-Reuters polled adults globally, 82% considered national television their most trusted news source. Continued decline in US readership have spawned newspaper layoffs. Many have completely dropped science and medical sections. According to environmental reporter Andrew Revkin, The New York Times is the last remaining refuge for US science journalists. But not all print is dying. US Spanish-language dailies recently passed a circulation of 1.7 million. No circulation problems exist overseas, nor are they likely in such hotspots as China, with 200,000 science graduates (versus 50,000 in the United States). Because foreign papers could increase press outreach, AAAS now translates press packages.

In 2005, Pinholster charted story counts against citations of journal articles covered by National Public Radio, The New York Times, and ABC-TV. The New York Times had the highest story count, doubling citations. For two studies covered in all three media, citations had a 10-fold increase. Medical subjects get the highest press pickup and the most citations. Eyewitness (PLOS Biology, May 2006) compared 1280 non-open-access with 212 open-access articles. The latter were twice as likely to be cited. Pinholster concluded that New York Times placement remains prestigious, but television and Internet sites are increasingly productive.

Pinholster observed that many "hot papers" do not have headline themes; "even if not publicized, a paper is not doomed to obscurity." Several-fold increases in journal article downloads occur for early press releases. Thus, article content matters. The audience noted that "science's chaos" occurs in journals might increase citations. Pinholster stated that "credible or extensive press coverage seems to help boost citations for meritorious papers simply by making the work more accessible."

Oransky said that because 25% of conference presentations are not published, conference coverage is "too much, too soon" (Schwartz, Woloshin, and Beaulieu, JAMA 2002). Responding to questions on broadcast journalism and spin, Pinholster admitted that AAAS chooses contacts carefully. Second-tier media or public television could provide more than the 3-minute sound bite. Oransky said that in deciding whether to trust press releases, one must consider the source. Faculty reporters might not use press releases, because they don't offer a scoop. Many reporters don't even read the journal articles. Oransky quipped, "If you really want to have a little bit, read my inbox." ☺

◆ 2007年サイエンスエディター協会誌／年会報告

- The Scientistの副編集長Ivan Oransky氏の調査「論文がメディアにカバーされると、引用数増加効果がある」
 - Science誌のGinger Pinholster氏の調査「記事になると引用数が倍増する」
- つまり、研究者はマスメディアでの報道で、研究成果を知り、興味を持って原著にあたっている

戦術

◆間接的なコミュニケーション

- ◆ ウェブサイトコンテンツの拡充
- ◆ 出版物の発行

◆間接的であり直接的なコミュニケーション

- ◆ プレスリリースの作成と配信

◆直接的なコミュニケーション

- ◆ メディア対応
- ◆ 科学イベント等の利用

ウェブサイトコンテンツ

本体ウェブサイト

The screenshot shows the RIKEN website homepage. The header features the RIKEN logo, a search bar, and navigation links for Japanese, About RIKEN, Laboratories, Press release, Public relations materials, and RIKEN's institutes & centers. The main content area is divided into several sections:

- For scientists:** Includes links to RIKEN RESEARCH (highlighted with a red circle), Latest scientific achievements, Laboratory heads, Scientific papers, Database, Symposia and Seminars, and Programs for Junior Scientists.
- For the general public:** Includes links to Videos, RIKEN Trivia, and Events.
- For companies & universities:** Includes links to Intellectual property & collaboration with industry, Research-based businesses and use of facilities, and Working at RIKEN.
- Working at RIKEN:** Includes links to Career opportunities, RIKEN Gender Equality Program, Next-generation Certification Mark "Kurumin", and For RIKEN alumni.
- For RIKEN alumni:** Includes links to RIKEN alumni email address and RIKEN SNS.
- Life at RIKEN:** Includes a link to a resource for prospective RIKEN researchers (highlighted with a red circle).

The right sidebar contains several featured articles and highlights:

- RIKEN's response to the Tohoku Pacific Offshore Earthquake:** Includes links to click for more information.
- Press release:** Lists recent press releases with dates and titles.
- Weekly Research Highlights:** Lists highlights such as "Making holograms look more real" and "Awaiting orders to retaliate".
- Highlight of the Month:** Features a diamond ring and a paradigm shift.
- Key Technology of National Importance:** Lists technologies like SACLA X-ray Free Electron Laser and K computer.

RIKEN RESEARCH

[About RIKEN RESEARCH](#) | [Archive](#) | [Register](#) | [RSS](#) | [Feedback](#) | [Help](#) | [Sitemap](#) | [Login](#) | [RIKEN](#)

RIKEN RESEARCH

Search: [GO](#)

[Research Highlights](#) | [Highlight of the Month](#) | [Frontlines](#) | [Podcast](#) | [Profiles](#) | [Postcards](#) | [Roundup](#) | [President's Initiatives](#) | [History](#) | [日本語](#)

Weekly Research Highlights June 2011

**Making holograms look more real**
Published in Science
A full-color three-dimensional hologram has been created by harnessing electron density waves in thin metal films
[more >](#)

**Awaiting orders to retaliate**
Published in Science Signaling
Signaling proteins that help immune cells develop also enable those cells to mount an effective counterattack against infections

**Preventing overreactions**
Published in Nature Immunology
Identification of the transcription factor that regulates a protein that dampens immune responses could aid the fight against autoimmune disease

**Superconductivity's third side unmasked**
Published in Science
A previously unknown and unexpected mechanism gives rise to superconductivity in specific types of materials
[more Research Highlights >](#)

Highlight of the Month June 2011

**A diamond ring sparks a paradigm shift**
Published in Science
Trapping four silicon atoms into a short-lived, diamond-shaped complex gives surprising insights into aromaticity
[more Highlight of the Month >](#)

Profiles

Exploring nuclear fusion and getting inside materials
Center Profile
[more >](#)

Postcards

Jian-Qiang You
Fudan University, Shanghai, China
Jian-Qiang You writes to Franco Nori, leader of the Digital Materials Team at the RIKEN Advanced Science Institute in Wako
[more >](#)

Roundup

[Strengthening ties with the Max Planck Society](#)

[Establishment of the RIKEN Quantitative Biology Center \(QBiC\)](#)

[RIKEN Wako Institute Open Day](#)

[RIKEN's response to the Tohoku Pacific offshore earthquake](#)
[more >](#)

President's Initiatives

'Cell surgery' using nano-beams
Using a simple glass capillary, nuclear physicists at RIKEN are developing an ultra-narrow ion beam that pinpoints the surface of organelles in a living cell, enabling

RIKEN E-Alerts

 Sign up for **FREE** RIKEN RESEARCH E-Alerts delivered to your Inbox each week with a synopsis of the latest research from RIKEN.
[Register >](#)

PDF Download

 **Free!**
June 2011 3.28 MB
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About RIKEN

RIKEN is one of Japan's largest research organizations with institutes and centres in various



特色

- 2006年7月に立ち上げ
- 所外の海外出版社に制作を外注
- ウェブサイトへの記事掲載が先行
 - 毎週金曜日に新しい記事をライブ
 - メールアラート登録者にお知らせ
- 1か月に1回、ウェブサイトの記事を集めて編集し、冊子体を作成

RIKEN RESEARCH 冊子体



VOLUME 5 | NUMBER 10 | OCTOBER 2010

A lack of order

A comparative study of two closely related organic insulators highlights the unusual properties of quantum spin liquids

A growing body of experimental evidence is lending support to the theory that an exotic state of matter called a quantum spin liquid actually exists. In a quantum spin liquid, the way electrons spin on their axes lacks any sense of organization throughout the material—even at temperatures approaching absolute zero, where order tends to reign supreme. However, definitive proof has proved elusive, particularly in two-dimensional systems.

Signatures of a quantum spin liquid have now been observed in an organic insulator by Reizo Kato at the RIKEN Advanced Science Institute, Wako, working in collaboration with researchers from Kyoto University and the Japan Science and Technology Agency.

In a quantum spin liquid, the magnetic arrangement of the material is incompatible with the underlying crystal geometry, thus preventing the spin from showing any order (Fig. 1). "This leads to liquid-like properties among the spins, even at absolute zero temperature," explains Kato. In contrast, molecules in iso-

The team compared two closely related organic insulators $\text{EtMe}_2\text{Sb}(\text{Ph})(\text{dnt})_2$ (abbreviated as dnt-131) and $\text{EtMe}_2\text{Sb}(\text{Ph})(\text{dnt})_2$ (abbreviated as dnt-221). Scientists previously proposed that dnt-131 may show quantum-optical state properties. Indeed, using nuclear magnetic resonance measurements, scientists have never identified any long-range magnetic order at temperatures as low as 19 millikelvin. The reason for this remains unclear. The crystal structure of dnt-221 is very similar; however, it exhibits a charge

The researchers measured the thermal conductivity at temperatures between 10 and 4.1 kelvin, since one of the most important experimental parameters is the thermal conductivity divided by the temperature. In deit-221, this parameter approaches zero as the temperature gets closer to absolute zero. "This is

presence of so-called gapless excitations, meaning that there is no energy gap between the ground state and excited states. However, there is also some evidence for spin-gap-like excitations.

These results indicate that this system is a quantum spin liquid with a dimer nature. "The next step is to address the fundamental question of whether a quantum spin liquid undergoes instabilities other than classical ordering," Kato notes.

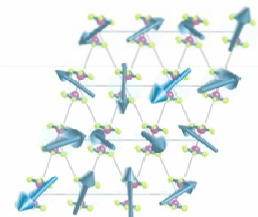


Figure 11. Schematic diagram of a quantum spin liquid. The electron spins, indicated by blue arrows, show no long-range ordering even at low temperatures.

RESEARCH HIGHLIGHTS

Magnets with a twist

The first direct observation of an unusual magnetic structure could lead to novel electronic and magnetic memory devices

In conventional ferromagnets, the individual magnetic moments of the atoms that together comprise the magnetism of the material are all aligned parallel, pointing in a common direction. In some magnets, quantum-mechanical interactions between the electrons of a material or the presence of internal electric fields, for example, mess up the magnetic arrangements and make them complex. Now, a rare arrangement of magnetic moments, so-called skyrmions, has been directly imaged by a team led by Yoshinori Tokura of the RIKEN Advanced Science Institute, Wako. Tokura and his colleagues from RIKEN and other research institutes in Japan and Korea confirmed that skyrmions are very stable and that their manipulation could form the basis for novel magnetic memories or electronic devices.

A dimeron can be envisaged as a source-like arrangement of magnetic moments that, towards the center of the structure, increasingly twist and bend inwards downwards direction (Fig. 1). In earlier experiments by other research groups, the existence of dimerons had been inferred indirectly but efforts to image them, and to confirm their structure, failed owing to their small size with diameters of around 90 nanometers.

Tokura and his team accomplished their direct observation of dimerons by using a Lorentz transmission electron microscope, which is suited to image magnetic structures at very high resolution. Previously, physicists considered this type of experiment impossible because observing dimerons would require the application of external magnetic fields that they thought would

Thus far, skyrmions have been observed only at temperatures of around 40 kelvin. "In future, we not only need to find new materials where skyrmions are stable at room temperature, but also find ways to manipulate their motion through electromagnetic effects," explains Tokura. He says that a number of known oxide magnetic materials could fulfill these criteria and may eventually lead to dimension-based devices.

5. Yu. I. Z., Grunin, V., Karasimova, N., Park, J. H., Han, J. H., Matsui, Y., Kageura, H. & Tokura, Y. Real-space observation of a two-dimensional electronic crystal. *Nature* **485**, 900–904 (2012).

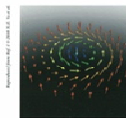


Figure 1. The structure of a dipole, its atomic magnetic moments start to point inward under externally applied magnetic field.

xx Researchの先駆け

RIKEN RESEARCH

A*STAR Research : シンガポールA*STARの広報コンテンツ

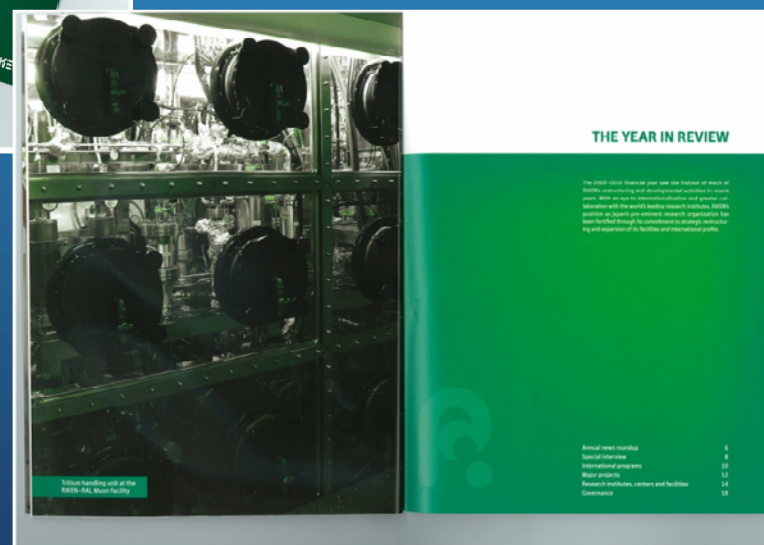
AIMResearch : 東北大学原子分子材料科学高等研究機構
(AIMR)の広報誌



宣伝

- Nature、Scienceのメールアラートに広告掲載（毎月）
- 国際科学イベントで登録を募る（年1～2回）
- 研究者が学会等に出張する際に冊子を持参して配布してもらう

アニュアルレポートと ミニパンフレット



英文プレスリリース

2007年より和文プレス英訳でなく 論文からネイティブライターによる書き起こし

The screenshot shows the RIKEN website interface. The top navigation bar includes links for Japanese, About RIKEN, Laboratories, Press release, Public relations materials, and RIKEN's institutes & centers. A search bar and font size controls are also present. The left sidebar contains various links categorized for scientists, the general public, companies/universities, and RIKEN alumni. The main content area, titled 'Research Updates', features a press release dated June 7, 2011, about the first X-ray lasing of SACLA. The release text describes the successful production of a first beam of X-ray laser light with a wavelength of 1.2 Angstroms at the SACLA facility in Harima, Japan. It highlights the significance of this achievement, noting that it opens a window into the structure of atoms and molecules at a level of detail never seen before. The release also mentions the facility's capacity to deliver radiation one billion times brighter and with pulses one thousand times shorter than other existing X-ray sources. The bottom of the page includes contact information for the RIKEN Harima Research Promotion Division.

RIKEN

Japanese | About RIKEN | Laboratories | Press release | Public relations materials | RIKEN's institutes & centers

For scientists

- RIKEN RESEARCH
- Latest scientific achievements
- Laboratory heads
- Scientific papers
- Database
- Symposia and Seminars
- Programs for Junior Scientists

For the general public

- Videos
- RIKEN Trivia
- Events

For companies & universities

- Intellectual property & collaboration with industry
- Research-based businesses and use of facilities

Working at RIKEN

- Career opportunities
- RIKEN Gender Equality Program
- Next-generation Certification Mark "Kurumin" 2009 Certified Company

For RIKEN alumni

- RIKEN alumni email address
- RIKEN SNS

Life at RIKEN
a resource for prospective RIKEN researchers

RIKEN Donations

Research Updates

Home > Press Release > 2011 > Research Updates: First X-ray lasing of SACLA

First X-ray lasing of SACLA

Next-generation facility up and running with powerful new X-ray laser

PDF: 22KB

June 7, 2011
RIKEN

RIKEN and the Japan Synchrotron Radiation Research Institute (JASRD) have successfully produced a first beam of X-ray laser light with a wavelength of 1.2 Angstroms. This light was created using SACLA, a cutting-edge X-ray Free Electron Laser (XFEL) facility unveiled by RIKEN in February 2011 in Harima, Japan. SACLA (SPRING-8 Angstrom Compact free electron LAser) opens a window into the structure of atoms and molecules at a level of detail never seen before.

The use of ultra high-intensity X-ray free electron laser light to explore the miniature structure of matter, until recently inconceivable, is today transforming how we visualize the atomic world. By providing much shorter wavelengths and higher intensities than other lasers, XFEL enables researchers to directly observe and manipulate objects on an unrivalled scale, opening new research opportunities in fields ranging from medicine and drug discovery to nanotechnology.

One of only two facilities in the world to offer this novel light source, SACLA has the capacity to deliver radiation one billion times brighter and with pulses one thousand times shorter than other existing X-ray sources. In late March, the facility marked its first milestone with beam acceleration to 8GeV and spontaneous X-rays of 0.8 Angstroms.

Only three months later, SACLA has marked a second milestone. On June 7, SACLA successfully increased the density of the electron beam by several hundred times and guided it with a precision of several micrometers to produce a bright X-ray laser with a wavelength of only 1.2 Angstroms (a photon energy of 10 keV). This matches the record of 1.2 Angstroms set at the only other operational XFEL facility in the world, the Linac Coherent Light Source (LCLS) in the United States.

With experiments soon to commence and user operations at the facility to begin by the end of fiscal 2011, this new record offers a taste of things to come with SACLA's powerful beam, the world's most advanced X-ray free electron laser.

For more information, please contact:
RIKEN Harima Research Promotion Division

〈2009年より〉情報配信会社、ResearchSEAと契約： 同ウェブサイトに掲載 関連分野のジャーナリストにダイレクトeメール送信



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Technology News

Article Released Mon-13th-June-2011 10:42 GMT
Contact: [gro-pr](#) Institution: [RIKEN](#)

First X-ray lasing of SACLA: Next-generation facility up and running with powerful new X-ray laser

RIKEN and the Japan Synchrotron Radiation Research Institute (JASRI) have successfully produced a first beam of X-ray laser light with a wavelength of 1.2 Angstroms.

This light was created using SACLA, a cutting-edge X-ray Free Electron Laser (XFEL) facility unveiled by RIKEN in February 2011 in Harima, Japan. SACLA (Spring-8 Angstrom Compact free electron LAser) opens a window into the structure of atoms and molecules at a level of detail never seen before.

The use of ultra high-intensity X-ray free electron laser light to explore the miniature structure of matter, until recently inconceivable, is today transforming how we visualize the atomic world. By providing much shorter wavelengths and higher intensities than other lasers, XFEL enables researchers to directly observe and manipulate objects on an unrivalled scale, opening new research opportunities in fields ranging from medicine and drug discovery to nanotechnology.

One of only two facilities in the world to offer this novel light source, SACLA has the capacity to deliver radiation one billion times brighter and with pulses one thousand times shorter than other existing X-ray sources. In late March, the facility marked its first milestone with beam acceleration to 8GeV and spontaneous X-rays of 0.8 Angstroms.

Only three months later, SACLA has marked a second milestone. On June 7, SACLA successfully increased the density of the electron beam by several hundred times and guided it with a precision of several micrometers to produce a bright X-ray laser with a wavelength of only 1.2 Angstroms (a photo energy of 10 keV). This matches the record of 1.2 Angstroms set at the only other operational XFEL facility in the world, the Linac Coherent Light Source (LCLS) in the United States.

With experiments soon to commence and user operations at the facility to begin by the end of fiscal 2011, this new record offers a taste of things to come with SACLA's powerful beam, the world's most advanced X-ray free electron laser.

For more information, please contact:

RIKEN Harima Research Promotion Division
RIKEN Harima Institute
Tel: +81-(0)791-58-0900 / Fax: +81-(0)791-58-0800
Email: riken-kikaku@spring8.or.jp

Global Relations Office
RIKEN
Tel: +81-(0)48-462-1225 / Fax: +81-(0)48-463-3687
Email: koho@riken.jp

Associated links

- [Press release on RIKEN website](#)
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First X-ray lasing of SACLA

June 17, 2011

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The use of ultra high-intensity X-ray free electron laser light to explore the miniature structure of matter, until recently inconceivable, is today transforming how we visualize the atomic world. By providing much shorter wavelengths and higher intensities than other lasers, XFEL enables researchers to directly observe and manipulate objects on an unrivalled scale, opening new research opportunities in fields ranging from medicine and drug discovery to nanotechnology.

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➤2007年度下半期

- 日本在住の所外の英語ネイティブフリーランスエディターをコアに、3人の外人ライターを加えた執筆チームを組織
 - 英語ネイティブ3人、ネイティブに近いマレーシア人1人
 - エディターはサイエンスライターだったが、他の3人は技術翻訳者。トライアルを実施し、ライティング能力のある人を選別。
- 論文から書き起こし

➤2009年度～2012年度

- 外務部翻訳チームに所属する日本語がわかる英語ネイティブの翻訳者がライター兼務
- 日本語プレスリリースを基にリライト

メディア対応

*New York Times*の常連寄稿者で著名なサイエンスライター、 Sandra BlakesleeにRIKEN RESEARCHの記事執筆を依頼

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Special Announcements

Coming to grips with 'monkey business'

Sandra Blakeslee, a science writer for The New York Times who specializes in the brain sciences, recently interviewed Atsushi Iriki of the RIKEN Brain Science Institute (BSI), Wako, Japan. Iriki, who helped pioneer the field of cognitive neurobiology, heads the Laboratory for Symbolic Cognitive Development and directs the Intellectual Brain Function Research Group at BSI, is an adjunct professor at Tokyo Medical and Dental University and The University of Tokyo, as well as being a visiting senior fellow of University College London and a member of the Science Council of Japan. In the interview, Iriki shares the story of the genesis of his career and his views on human evolution.

As a high school student, Atsushi Iriki wanted to understand what makes humans so different from other creatures. How did the human brain evolve its intellectual capacities? What makes *Homo sapiens* so exceptionally sapient?



Iriki's first thought was that it must be language. As a bilingual speaker, he found that when he thought about something in English, and then thought about the same thing in Japanese, he would sometimes reach a different conclusion. "We think with language and we think with our brain," he said in a recent media interview. "That made me eager to study the neuroscience of language."

Alas, that was in 1978, long before our understandings of functional neuroanatomy could even come close to meshing with linguistic theory. Undeterred, Iriki made it his goal to help establish a new science of neurolinguistics. Reasoning that language is a function of the mouth, he decided to study dentistry. He explored tongue and tooth sensations, the anatomy of chewing, and eventually, for his postdoc at Rockefeller University in New York, how the brain's sensory and movement systems are tightly interconnected via feedback loops.

From that unconventional beginning, Iriki went on to shed new light on the evolution of human intelligence by revealing the neural precursors of intelligent behavior in monkeys and other animals. Most notably, Japanese macaques have mental correlates for language, tool use, arithmetic, social reciprocity and other hallmarks of the human intellect.

Q: In 1990, you were back in Japan where you started what you call 'monkey business'. What were you looking

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ジャーナリストに売りこみ、La Recherche誌に取り上げ
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