

リサーチ コネクト

✿ RESEARCH CONNECT! ✿

Re:Div^{リダイブ}e

-キカルちゃんの論文チェック、その裏側-

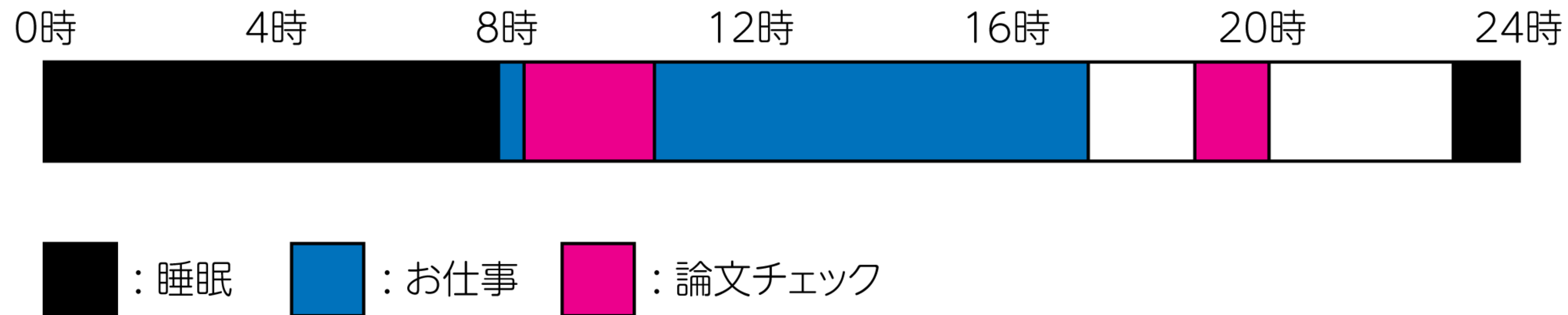
キカルちゃん

04/16/2022 @数物系サーバ

キヤルちゃんの論文チェック

キヤルちゃんの論文チェックとは？

- astrophチェック: 宇宙物理系のarXiv新着論文チェック
毎日夜7時(日本時間では昼10時)ごろTwitter TLに流す
- quantphチェック: 量子情報系のarXiv新着論文チェック
毎日朝9時(日本時間では夜12時)ごろTwitter TLに流す



日々のルーティンってやつよ

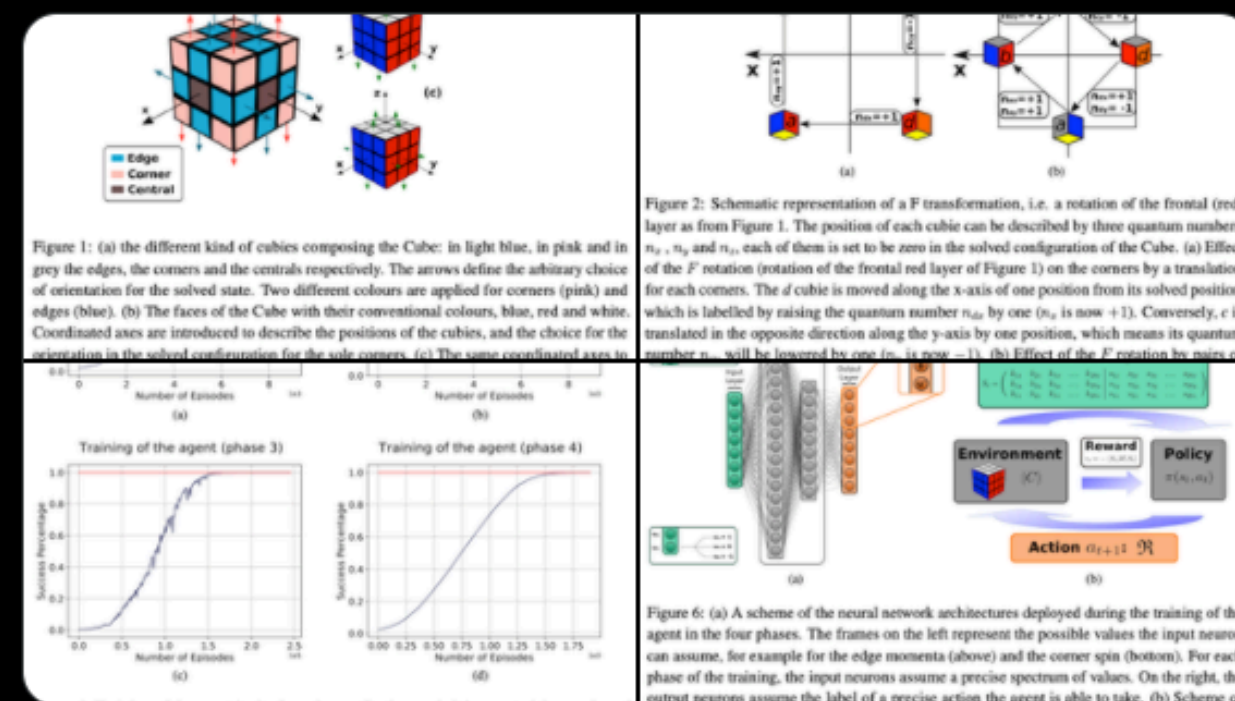


キヤルちゃんの論文チェックのメリット

- どんな研究が世界で行われているかのキャッチアップ
- 世の中より先に知識を仕入れることができる
- Twitterでみんなから注目される (たまにプチバズする)

勉強のモチベーションは
人それぞれよね

#キヤルちゃんのquantphチェック
ルービックキューブを表現するルービック群をユニタリ表現し、その幾何学的制約からルービックキューブを量子論的に記述。ルービックキューブの角はボソン、辺はフェルミオンのように振る舞うことを示し、さらにこれを深層強化学習で解いた。
arxiv.org/abs/2109.07199



午前9:53 · 2021年9月16日 · Twitter Web App

|| ツイートアクティビティを表示

プロモーションする

153 件のリツイート 27 件の引用ツイート 569 件のいいね



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キヤルちゃんの論文チェックのデメリット

- 自分の時間が取られる (他にやりたいことがあるのに...)
- 正しく要約できているか不安になる (英語力とその分野の理解)
- 純粹に日々続けるのが辛かったりする


まあ人間だものね




ArXivとは

チェックしているwebsite

- アーカイブ: <https://arxiv.org/>
- 世界中の人が査読済み論文や研究ノート・講義ノートを投稿している
- 査読というシステムがないので、信頼性は査読雑誌よりは低い？

 Cornell University



Search...

All fields

▼

Search

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Subject search and browse:

Physics

▼

Search

Form Interface

Catchup

News
Read about recent news and updates on [arXiv's blog](#). (View the former "what's new" pages here). Read [robots beware](#) before attempting any automated download.

Physics

- **Astrophysics** (**astro-ph** [new](#), [recent](#), [search](#))
includes: [Astrophysics of Galaxies](#); [Cosmology and Nongalactic Astrophysics](#); [Earth and Planetary Astrophysics](#); [High Energy Astrophysical Phenomena](#); [Instrumentation and Methods for Astrophysics](#); [Solar and Stellar Astrophysics](#)
- **Condensed Matter** (**cond-mat** [new](#), [recent](#), [search](#))
includes: [Disordered Systems and Neural Networks](#); [Materials Science](#); [Mesoscale and Nanoscale Physics](#); [Other Condensed Matter](#); [Quantum Gases](#); [Soft Condensed Matter](#); [Statistical Mechanics](#); [Strongly Correlated Electrons](#); [Superconductivity](#)
- **General Relativity and Quantum Cosmology** (**gr-qc** [new](#), [recent](#), [search](#))
- **High Energy Physics – Experiment** (**hep-ex** [new](#), [recent](#), [search](#))
- **High Energy Physics – Lattice** (**hep-lat** [new](#), [recent](#), [search](#))
- **High Energy Physics – Phenomenology** (**hep-ph** [new](#), [recent](#), [search](#))
- **High Energy Physics – Theory** (**hep-th** [new](#), [recent](#), [search](#))
- **Mathematical Physics** (**math-ph** [new](#), [recent](#), [search](#))
- **Nonlinear Sciences** (**nlin** [new](#), [recent](#), [search](#))
includes: [Adaptation and Self-Organizing Systems](#); [Cellular Automata and Lattice Gases](#); [Chaotic Dynamics](#); [Exactly Solvable and Integrable Systems](#); [Pattern Formation and Solitons](#)
- **Nuclear Experiment** (**nucl-ex** [new](#), [recent](#), [search](#))
- **Nuclear Theory** (**nucl-th** [new](#), [recent](#), [search](#))
- **Physics** (**physics** [new](#), [recent](#), [search](#))
includes: [Accelerator Physics](#); [Applied Physics](#); [Atmospheric and Oceanic Physics](#); [Atomic and Molecular Clusters](#); [Atomic Physics](#); [Biological Physics](#); [Chemical Physics](#); [Classical Physics](#); [Computational Physics](#); [Data Analysis, Statistics and Probability](#); [Fluid Dynamics](#); [General Physics](#); [Geophysics](#); [History and Philosophy of Physics](#); [Instrumentation and Detectors](#); [Medical Physics](#); [Optics](#); [Physics and Society](#); [Physics Education](#); [Plasma Physics](#); [Popular Physics](#); [Space Physics](#)
- **Quantum Physics** (**quant-ph** [new](#), [recent](#), [search](#))

ArXivの分類

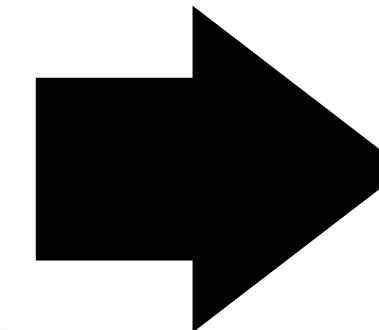
- Physics
(Astrophysics, Condensed Matter, General Relativity and Quantum Cosmology, High Energy Physics, Mathematical Physics, Nonlinear Science, Nuclear Physics, Physics, Quantum Physics)
- Mathematics
- Computer Science
- Quantitative Biology
- Statistics
- Electrical Engineering and System Science
- Economics


チェックしている場所


- アーカイブの“new”の部分

Physics

- **Astrophysics** (**astro-ph** [new](#) [recent](#), [search](#))
includes: [Astrophysics of Galaxies](#); [Cosmology and Nongalactic Astrophysics](#); [Earth and Planetary Astrophysics](#)
- **Condensed Matter** (**cond-mat** [new](#) [recent](#), [search](#))
includes: [Disordered Systems and Neural Networks](#); [Materials Science](#); [Mesoscale and Nanoscale Physics](#); [Superconductivity](#)
- **General Relativity and Quantum Cosmology** (**gr-qc** [new](#) [recent](#), [search](#))
- **High Energy Physics - Experiment** (**hep-ex** [new](#) [recent](#), [search](#))
- **High Energy Physics - Lattice** (**hep-lat** [new](#) [recent](#), [search](#))
- **High Energy Physics - Phenomenology** (**hep-ph** [new](#) [recent](#), [search](#))
- **High Energy Physics - Theory** (**hep-th** [new](#) [recent](#), [search](#))
- **Mathematical Physics** (**math-ph** [new](#) [recent](#), [search](#))
- **Nonlinear Sciences** (**nlin** [new](#) [recent](#), [search](#))
includes: [Adaptation and Self-Organizing Systems](#); [Cellular Automata and Lattice Gases](#); [Chaotic Dynamical Systems](#)
- **Nuclear Experiment** (**nucl-ex** [new](#) [recent](#), [search](#))
- **Nuclear Theory** (**nucl-th** [new](#) [recent](#), [search](#))
- **Physics** (**physics** [new](#) [recent](#), [search](#))
includes: [Accelerator Physics](#); [Applied Physics](#); [Atmospheric and Oceanic Physics](#); [Atomic and Molecular Physics](#); [Classical Physics](#); [Computational Physics](#); [Probability](#); [Fluid Dynamics](#); [General Physics](#); [Geophysics](#); [History and Philosophy of Physics](#); [Instrumentation and Detectors](#)
- **Quantum Physics** (**quant-ph** [new](#) [recent](#), [search](#))




Cornell University


arXiv > astro-ph

Astrophysics

New submissions

Submissions received from Tue 15 Mar 22 to Wed 16 Mar 22, announced Thu, 17 Mar 22

- [New submissions](#)
- [Cross-lists](#)
- [Replacements](#)

[total of 101 entries: 1–101]
[showing up to 2000 entries per page: [fewer](#) | [more](#)]

New submissions for Thu, 17 Mar 22

[1] [arXiv:2203.08151](#) [[pdf](#), [other](#)]

Magnetic Field Reversal around an Active Fast Radio Burst
S. Dai, Y. Feng, Y. P. Yang, Y. K. Zhang, D. Li, C. H. Niu, P. Wang, M. Y. Xue, B. Zhang, S. Burke-Cruces, G. Hobbs, C. C. Miao, J. R. Niu, M. D. Filipovic, S. Q. Zhu

Comments: Submitted
Subjects: **High Energy Astrophysical Phenomena (astro-ph.HE)**; Astrophysics of Galaxies (astro-ph.GA)

The environment of actively repeating fast radio bursts (FRBs) has been shown to be complex and varying. We report the discovery of a second FRB source associated with a compact, persistent radio source (PRS). The main tracer of the magnetic field (B-field) and electron density, which does not allow a direct probe of the B-field configuration. Here we report that the B-field configuration has changed from $\sim 10000 \text{ rad m}^{-2}$ to $\sim -16000 \text{ rad m}^{-2}$ between June 2021 and January 2022. Such extreme B-field configuration in or around the FRB could be due to the vicinity of massive black holes, or a magnetar.

[2] [arXiv:2203.08152](#) [[pdf](#), [other](#)]

CMB lensing power spectrum with next generation surveys
Louis Legrand, Julien Carron

Comments: Contribution to the 2022 Cosmology session of the 56th Rencontres de Moriond, 2 pages, 2 figures
Subjects: **Cosmology and Nongalactic Astrophysics (astro-ph.CO)**

We introduce a new estimator of the CMB lensing power spectrum, together with its likelihood, based on the standard quadratic estimator. Most importantly, it is unbiased towards the assumptions done on the noise compared to the quadratic estimator, while keeping numerical cost under control and being robust to errors.

[3] [arXiv:2203.08153](#) [[pdf](#), [other](#)]

NGC 1605 is not a binary cluster
Friedrich Anders, Alfred Castro-Ginard, Juan Casado, Carme Jordi, Lola Balaquer-Núñez

チェックしている場所

- New submissions: そのトピックスに沿った投稿論文
- Cross-lists: そのトピックスがメインではないが、サブとして入っている投稿論文
(例: メインはcond-matだが、量子も絡むのでquanphもサブで入っているなど)
- Replacements: 以前に投稿されたものの再投稿



Astrophysics

New submissions

Submissions received from Tue 15 Mar 22 to Wed 16 Mar 22, announced Thu, 17 Mar 22

- [New submissions](#)
- [Cross-lists](#)
- [Replacements](#)

ArXivに掲載される本数

- Astroph: 平均50-70本 (多い日で100本越え)
 - > その中から個人的に面白いと思ったものを5-8本くらい抽出
- Quantph: 平均20-40本 (多い日で60本くらい)
 - > 同じく10-20本くらい抽出

論文チェックの仕方

論文チェックの流れ

1. Titleを読む

New submissions for Thu, 17 Mar 22

[1] [arXiv:2203.08151](#) [[pdf](#), [other](#)]

Magnetic Field Reversal around an Active Fast Radio Burst

[S. Dai](#), [Y. Feng](#), [Y. P. Yang](#), [Y. K. Zhang](#), [D. Li](#), [C. H. Niu](#), [P. Wang](#), [M. Y. Xue](#), [B. Zhang](#), [S. Burke-Spolaor](#), [C. J. Law](#), [R. S. Lynch](#), [L. Connor](#), [R. Anna-Thomas](#), [L. Zhang](#), [R. Duan](#), [J. M. Yao](#), [C. W. Tsai](#), [W. W. Zhu](#), [M. Cruces](#), [G. Hobbs](#), [C. C. Miao](#), [J. R. Niu](#), [M. D. Filipovic](#), [S. Q. Zhu](#)

Comments: Submitted

Subjects: **High Energy Astrophysical Phenomena** ([astro-ph.HE](#)); Astrophysics of Galaxies ([astro-ph.GA](#))

The environment of actively repeating fast radio bursts (FRBs) has been shown to be complex and varying. The recently localized FRB 20190520B is extremely active, has the largest confirmed host dispersion measure, and is only the second FRB source associated with a compact, persistent radio source (PRS). The main tracer of the magneto-ionic environments is the rotation measure (RM), a path-integral of the line-of-sight component of magnetic field strength (B) and electron density, which does not allow a direct probe of the B-field configuration. Here we report direct evidence for a B-field reversal based on the observed sign change and extreme variation of FRB 20190520B's RM, which changed from $\sim 10000 \text{ rad m}^{-2}$ to $\sim -16000 \text{ rad m}^{-2}$ between June 2021 and January 2022. Such extreme RM reversal has never been observed before in any FRB nor in any astronomical object. The implied short-term change of the B-field configuration in or around the FRB could be due to the vicinity of massive black holes, or a magnetized companion star in binary systems, or a young supernova remnant along the line of sight.

[2] [arXiv:2203.08152](#) [[pdf](#), [other](#)]

CMB lensing power spectrum with next generation surveys

[Louis Legrand](#), [Julien Carron](#)

Comments: Contribution to the 2022 Cosmology session of the 56th Rencontres de Moriond, 2 pages, 2 figures

Subjects: **Cosmology and Nongalactic Astrophysics** ([astro-ph.CO](#))

We introduce a new estimator of the CMB lensing power spectrum, together with its likelihood, based on iterative lensing reconstruction. Despite the increased complexity of the lensing maps, this estimator shares similarities with the standard quadratic estimator. Most importantly, it is unbiased towards the assumptions done on the noise and cosmology for the lensing reconstruction. This new spectrum estimator can double the constraints on the lensing amplitude compared to the quadratic estimator, while keeping numerical cost under control and being robust to errors.

[3] [arXiv:2203.08153](#) [[pdf](#), [other](#)]

NGC 1605 is not a binary cluster

[Friedrich Anders](#), [Alfred Castro-Ginard](#), [Juan Casado](#), [Carme Jordi](#), [Lola Balaguer-Núñez](#)

Comments: Accepted by RNAAS. 2 pages, 1 figure. Online material here: [this https URL](#)

Subjects: **Astrophysics of Galaxies** ([astro-ph.GA](#)); Solar and Stellar Astrophysics ([astro-ph.SR](#))

The open star cluster NGC 1605 has recently been reported to in fact consist of two clusters (one intermediate-aged and one old) that merged via a flyby capture. Here we show that Gaia data do not support this scenario. We also report the serendipitous discovery of a new open cluster, Can Batlló 1, with a similar age and distance.

[4] [arXiv:2203.08155](#) [[pdf](#), [other](#)]

Weak Mass Loss from the Red Supergiant Progenitor of the Type II SN 2021yja

[Griffin Hosseinzadeh](#), [Charles D. Kilpatrick](#), [Yize Dong](#), [David J. Sand](#), [Jennifer E. Andrews](#), [K. Azalee Bostroem](#), [Daryl Janzen](#), [Jacob E. Jencson](#), [Michael Lundquist](#), [Nicolás Meza](#), [Jeniveve Pearson](#), [Stefano Valenti](#), [Samuel Wvatt](#), [Jamison Burke](#), [Daichi Hiramatsu](#), [D. Andrew Howell](#), [Curtis McCully](#), [Meghan Newsome](#), [Estefania Padilla Gonzalez](#), [Craig Pellegrino](#), [Giacomo Terreran](#), [Katie Auchettl](#), [Kyle W. Davis](#), [Ryan I. Foley](#), [Hao-](#)

論文チェックの流れ

2. Titleを読んで「面白そう」「自分に必要」と感じたら、abstractを読む
(Titleだけで判断できなければabstractで判断しても良い)

New submissions for Thu, 17 Mar 22

[1] [arXiv:2203.08151](#) [pdf, other]

Magnetic Field Reversal around an Active Fast Radio Burst

S. Dai, Y. Feng, Y. P. Yang, Y. K. Zhang, D. Li, C. H. Niu, P. Wang, M. Y. Xue, B. Zhang, S. Burke-Spolaor, C. J. Law, R. S. Lynch, L. Connor, R. Anna-Thomas, L. Zhang, R. Duan, J. M. Yao, C. W. Tsai, W. W. Zhu, M. Cruces, G. Hobbs, C. C. Miao, J. R. Niu, M. D. Filipovic, S. Q. Zhu

Comments: Submitted

Subjects: High Energy Astrophysical Phenomena (astro-ph.HE); Astrophysics of Galaxies (astro-ph.GA)

The environment of actively repeating fast radio bursts (FRBs) has been shown to be complex and varying. The recently localized FRB 20190520B is extremely active, has the largest confirmed host dispersion measure, and is only the second FRB source associated with a compact, persistent radio source (PRS). The main tracer of the magneto-ionic environments is the rotation measure (RM), a path-integral of the line-of-sight component of magnetic field strength (B) and electron density, which does not allow a direct probe of the B-field configuration. Here we report direct evidence for a B-field reversal based on the observed sign change and extreme variation of FRB 20190520B's RM, which changed from $\sim 10000 \text{ rad m}^{-2}$ to $\sim -16000 \text{ rad m}^{-2}$ between June 2021 and January 2022. Such extreme RM reversal has never been observed before in any FRB nor in any astronomical object. The implied short-term change of the B-field configuration in or around the FRB could be due to the vicinity of massive black holes, or a magnetized companion star in binary systems, or a young supernova remnant along the line of sight.

[2] [arXiv:2203.08152](#) [pdf, other]

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We introduce a new estimator of the CMB lensing power spectrum, together with its likelihood, based on iterative lensing reconstruction. Despite the increased complexity of the lensing maps, this estimator shares similarities with the standard quadratic estimator. Most importantly, it is unbiased towards the assumptions done on the noise and cosmology for the lensing reconstruction. This new spectrum estimator can double the constraints on the lensing amplitude compared to the quadratic estimator, while keeping numerical cost under control and being robust to errors.

[3] [arXiv:2203.08153](#) [pdf, other]

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Comments: Accepted by RNAAS. 2 pages, 1 figure. Online material here: [this https URL](#)

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[4] [arXiv:2203.08155](#) [pdf, other]

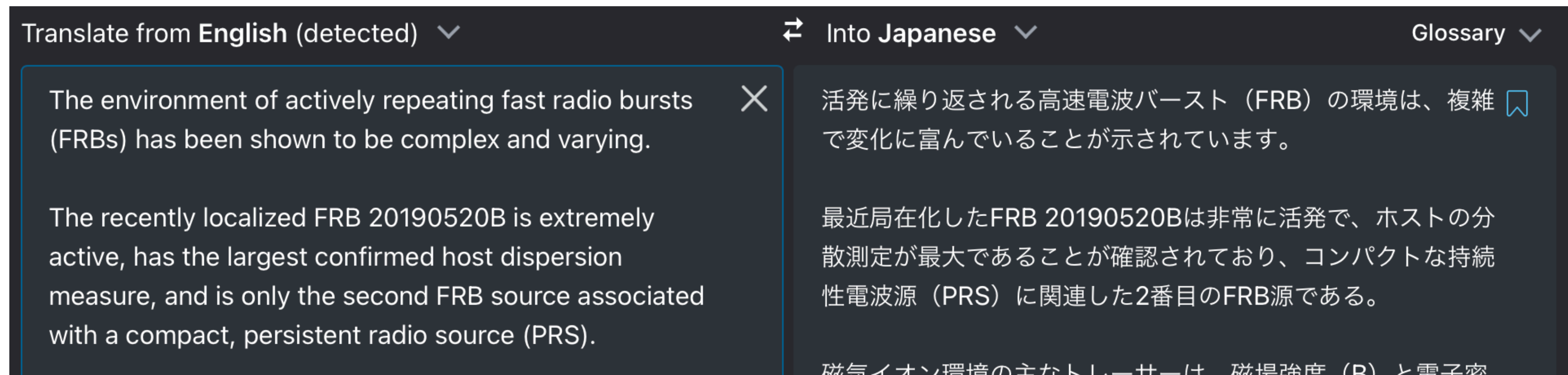
論文チェックの流れ

3. 躊躇なく abstractをDeepLにぶち込む

(専門用語やカンマ区切りの多い文章などは正しく訳せない場合があるので、日本語と英語を照らし合わせながら読む)

(論文のabstractは1000-1500字程度、DeepLは無料で5000字まで翻訳可能)

(DeepLの画面で見やすいように改行を入れると良い)



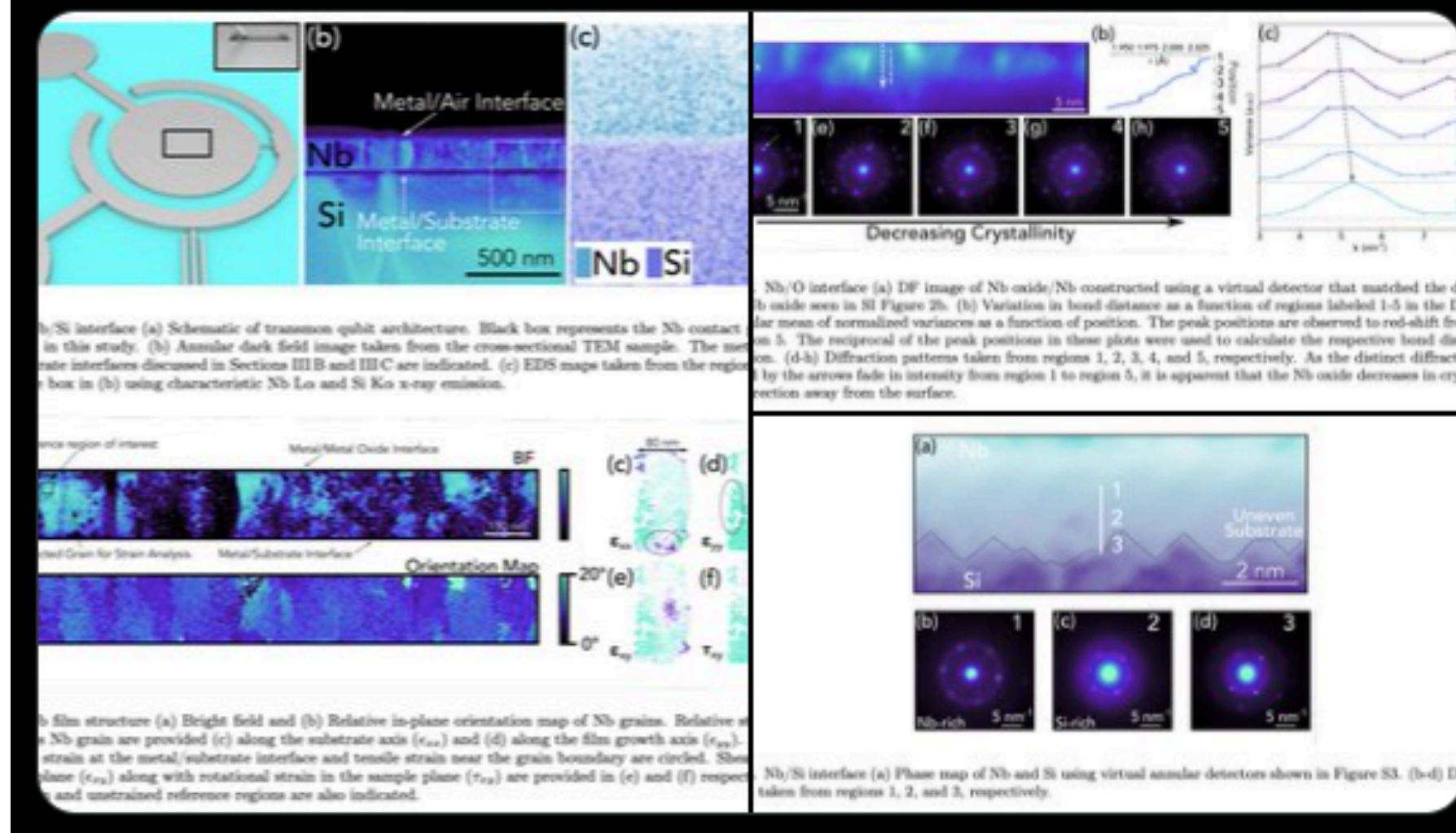
論文チェックの流れ

4. (Twitterなどに要約を掲載する場合)130字程度でその論文の主要な結果を綴る
5. 重要(そう)な図もスクリーンショットに撮り、4つまでを掲載する

#キャルちゃんのquantphチェック

トランズモン量子ビットに使われるニオブ超伝導薄膜における潜在的なデコヒーレンス源を調査。電子顕微鏡からニオブ薄膜では境界面に局所的な歪みが見られ、これが2準位系間の相互作用を増幅しT1, T2緩和時間に制限を課す可能性があるかと判明。

arxiv.org/abs/2203.08710



論文チェックの流れ

* そもそもどれを読んで良いかわからなければ...

論文が掲載された雑誌・著者などで判断しても良い (非推奨...だが良く使う手)

Nature Astronomy: 14.4

Astrophysical Journal Letters (ApJL): 8.2

Astrophysical Journal (ApJ): 5.9

Astronomy & Astrophysics (A&A): 5.8

Monthly Notices of the Royal Astronomical Society (MNRAS): 5.3

Physical Review D: 5.3

Publications of the Astronomical Society of Japan (PASJ): 5.0

[8] [arXiv:2203.08162](#) [[pdf](#), [other](#)]

Using the Hills Mechanism to Generate Repeating Partial Tidal Disruptions
[M. Cufari](#), [Eric R. Coughlin](#), [C. J. Nixon](#)

Comments: 6 pages, 1 figure, and 1 table. Resubmitted to ApJL following first referee report

Subjects: **High Energy Astrophysical Phenomena (astro-ph.HE)**

Periodic nuclear transients have been detected with increasing frequency, with one source are generated by the repeated partial disruption of a star, but how the star was integrated to demonstrate that the Hills mechanism, where a binary system is destroyed by the tidal radius of one of the stars within the binary. Thus, Hills capture can produce stars on the ASASSN-14ko, but for periodic nuclear transients in general. We also show that the rate of events is indicating that in this system there must be additional effects that contribute to the observed observable period decay rates in future events.

例を実演

例: Magnetic Field Reversal around an Active Fast Radio Burst

The environment of actively repeating fast radio bursts (FRBs) has been shown to be complex and varying.

The recently localized FRB 20190520B is extremely active, has the largest confirmed host dispersion measure, and is only the second FRB source associated with a compact, persistent radio source (PRS).

The main tracer of the magneto-ionic environments is the rotation measure (RM), a path-integral of the line-of-sight component of magnetic field strength (B) and electron density, which does not allow a direct probe of the B -field configuration.

Here we report direct evidence for a B -field reversal based on the observed sign change and extreme variation of FRB 20190520B's RM, which changed from $\sim 10000 \text{ rad m}^{-2}$ to $\sim -16000 \text{ rad m}^{-2}$ between June 2021 and January 2022.

Such extreme RM reversal has never been observed before in any FRB nor in any astronomical object.

The implied short-term change of the B -field configuration in or around the FRB could be due to the vicinity of massive black holes, or a magnetized companion star in binary systems, or a young supernova remnant along the line of sight.

例: Magnetic Field Reversal around an Active Fast Radio Burst

The environment of actively repeating fast radio bursts (FRBs) has been shown to be complex and varying.

The recently localized FRB 20190520B is extremely active, has the largest confirmed host dispersion measure, and is only the second FRB source associated with a compact, persistent radio source.

The main limitation of the RM measurement (RM), a path-integral of the magnetic field along the line of sight, is that it does not allow a direct probe of the B-field configuration.

Here we report direct evidence for a B-field reversal based on the observed sign change and extreme variation of FRB 20190520B's RM, which changed from $\sim 10000 \text{ rad m}^{-2}$ to $\sim -16000 \text{ rad m}^{-2}$ between June 2021 and January 2022.

Such extreme RM reversal has never been observed before in any FRB nor in any astronomical object.

The implied short-term change of the B-field configuration in or around the FRB could be due to the vicinity of massive black holes, or a magnetized companion star in binary systems, or a young supernova remnant along the line of sight.

一番言いたいのはココ

We report/find/show/propose/provide/demonstrate ... などは特に重要

例: Magnetic Field Reversal around an Active Fast Radio Burst

The environment of actively repeating fast radio bursts (FRBs) has been shown to be complex and varying.

The recently localized FRB 20190520B is extremely active, has the largest confirmed host dispersion measure, and is only the second FRB source associated with a compact, persistent radio source (PRS).

The main tracer of the magneto-ionic environments is the rotation measure (RM), a path-integral of the line-of-sight component of magnetic field strength (B) and electron density, which does not allow a direct probe of the B-field configuration.

Here we report direct evidence for a B-field reversal based on the observed sign change and extreme variation of FRB 20190520B's RM, which changed from $\sim 10000 \text{ rad m}^{-2}$ to $\sim -16000 \text{ rad m}^{-2}$ between June 2

Such extreme RM reversal has never been observed in any astronomical object.

The implied short-term change of the B-field could be due to the vicinity of massive black holes, or a magnetized companion star in binary systems, or a young supernova remnant along the line of sight.

ここまでは研究の背景

これまででわかっていること、
これまでの研究の問題や未解決部分など

例: Magnetic Field Reversal around an Active Fast Radio Burst

The environment of actively repeating fast radio bursts (FRBs) has been shown to be complex and varying.

The recently localized FRB 20190520B is extremely active, has the largest confirmed host dispersion measure, and is only the second FRB source associated with a compact, persistent radio source (PRS).

The main tracer of the magneto-ionic environments is the rotation measure (RM), a path-integral of the line-of-sight component of magnetic field strength (B) and electron density, which does not allow a direct probe of the B -field.

Here we report direct evidence for a B -field reversal observed sign change and extreme variation of FRB 20190520B's RM, from ~ 16000 rad m^{-2} to ~ -16000 rad m^{-2} between June 2021 and January 2022.

Such extreme RM reversal has never been observed before in any FRB nor in any astronomical object.

The implied short-term change of the B -field configuration in or around the FRB could be due to the vicinity of massive black holes, or a magnetized companion star in binary systems, or a young supernova remnant along the line of sight.

今回の発見から示唆されること
将来的な発展性など

例: Magnetic Field Reversal around an Active Fast Radio Burst

The environment of actively repeating fast radio bursts (FRBs) has been shown to be complex and varying.

The recently localized FRB 20190520B has a rotation measure (RM) of $+10000 \text{ rad m}^{-2}$, the most confirmed host to date. The source is a compact, persistent radio source (PRS).

The main tracer of the magnetic field is the RM, a path-integral of the line-of-sight magnetic field and electron density, which does not allow a direct measurement of the field.

Here we report direct evidence for a reversal of the RM of FRB 20190520B from $+10000 \text{ rad m}^{-2}$ to $-16000 \text{ rad m}^{-2}$ over a period of 18 months.

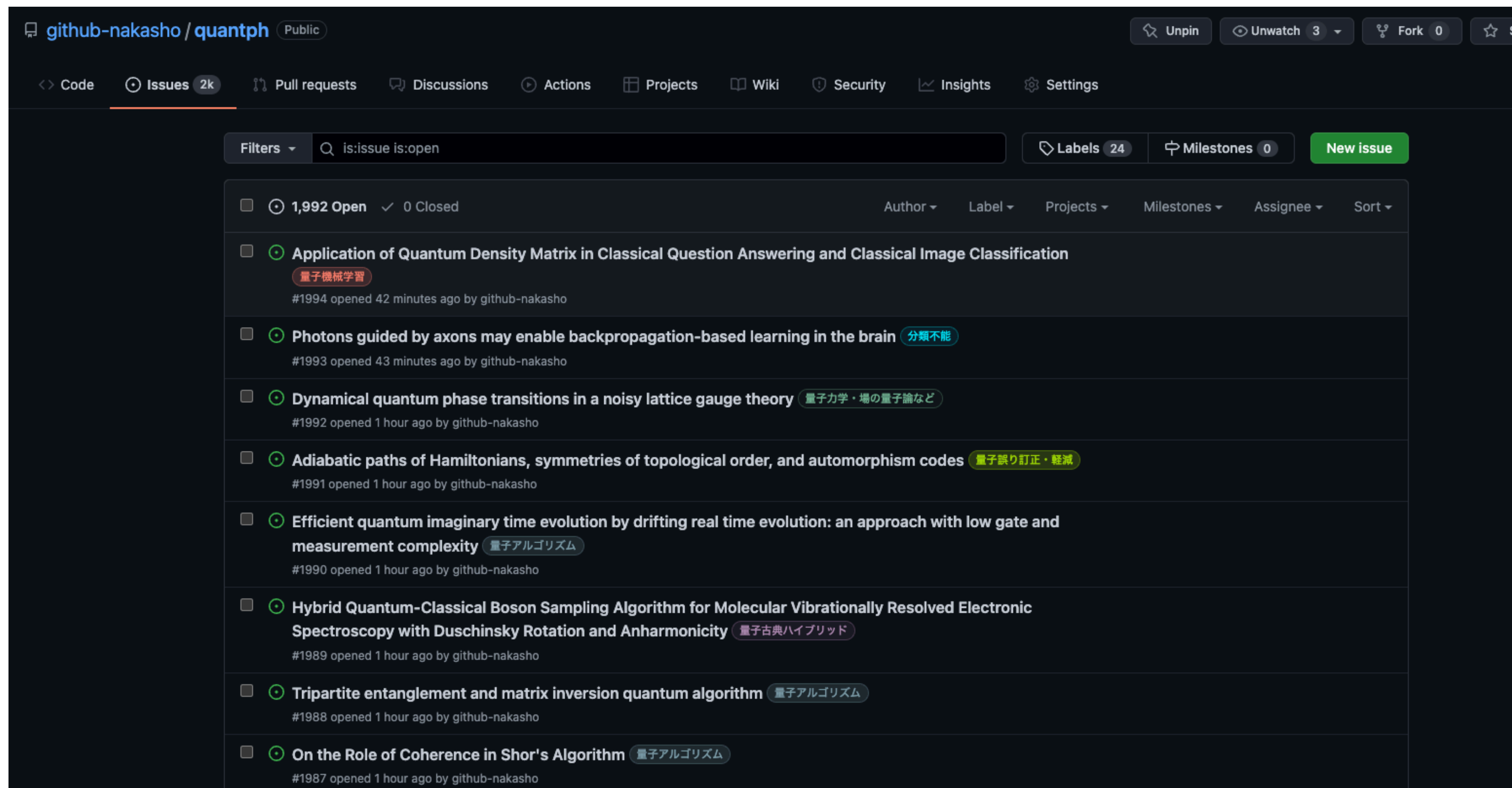
Such extreme RM reversal is not expected from any known astrophysical object. The implied short-term change in the magnetic field in the vicinity of massive black holes, young supernova remnants, or in any astronomical environment is consistent with the FRB being due to a binary system, or a



論文を読んだ後は...

GitHubのリポジトリにissue登録

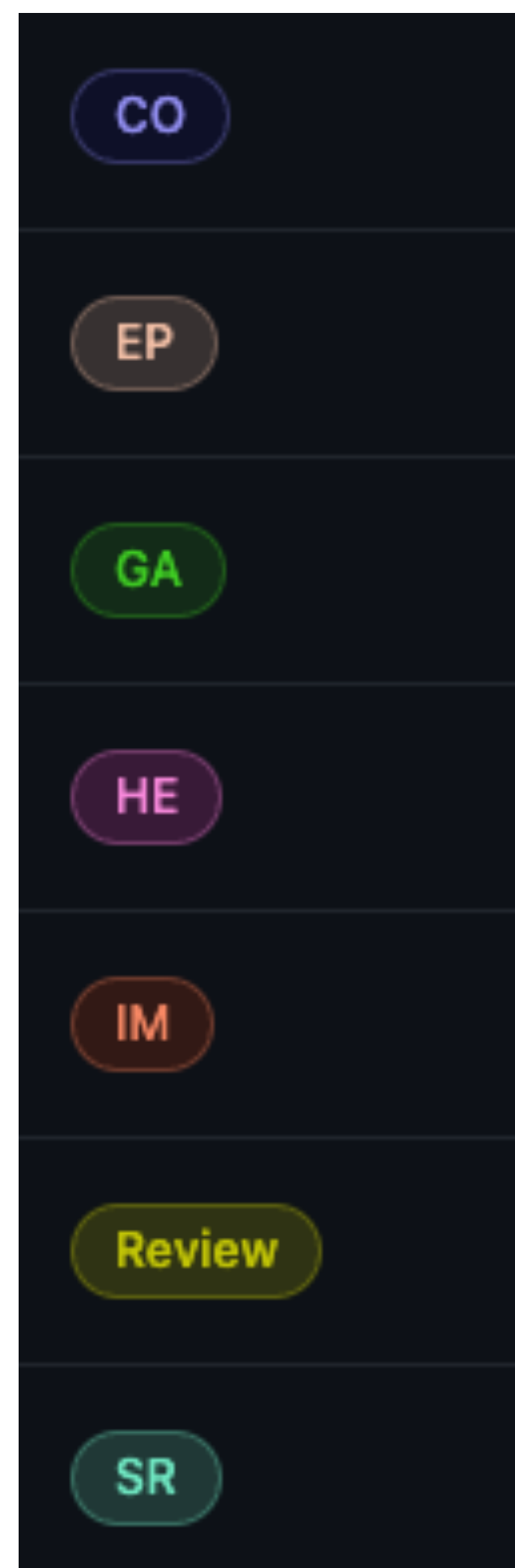
- Issueタイトルに読んだ論文のタイトルをそのままコピペ、内容部分に要約などをコピペするだけ。



GitHubのリポジトリにissue登録

- ラベルをつけて「どのような論文か」を大別することができる

宇宙物理



量子情報



結言

結言

- 論文チェックは、その分野の良い勉強になる
- 英語が読めない -> 和訳や理解を助けるツールをバンバン使おう
- まずは一つ、興味があるものから読んでみると良いかも
- GitHubなどでどんな論文を読んだか管理すると、あとで見返すのがラク