

APS JOURNALS

Physical Review Letters, Physical Review, and Reviews of Modern Physics

出版社簡介

美國物理學會 APS (American Physical Society) 成立於 1899 年，旨在促進及擴展物理學知識。為全球各研究單位提供自 1893 年以來，在『 **PHYSICAL REVIEW** 』上刊載的所有物理學文獻，讓使用者在彈指間即可進入到這一豐富的資源寶藏。APS 另一重要出版品 **Physical Review Online Archive (PROLA)**，將所有文章影像掃描，存為 PDF 或 GIF 格式。包含原文、標題、作者、摘要、照片說明及參考資料的完整檢索，並提供與 APS 或其他簽定連結同意的出版社所出版的參考文件的超連結。收錄極為完整且豐富的回溯資料。

APS 出版品

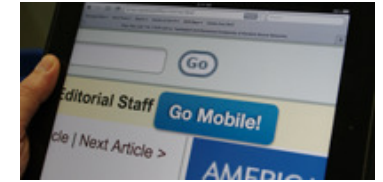
期刊名稱	EISSN	期數	收錄年代	IF (2011)
Physical Review A	1094-1622	12	1970-2013	2.878
Physical Review B	1550-235x	48	1970-2013	3.691
Physical Review C	1089-490x	12	1970-2013	3.308
Physical Review D	1550-2368	24	1970-2013	4.558
Physical Review E	1550-2376	12	1993-2013	2.255
Physical Review Letters	1079-7114	52	1958-2013	7.37
Reviews of Modern Physics	1539-0756	4	1929-2012	43.933
Physical Review Online Archive (PROLA)	1893-2009	...
Physical Review Applied	TBD	TBD	New in 2014	...
Physical Review X	2160-3308	4	2013	Open Access



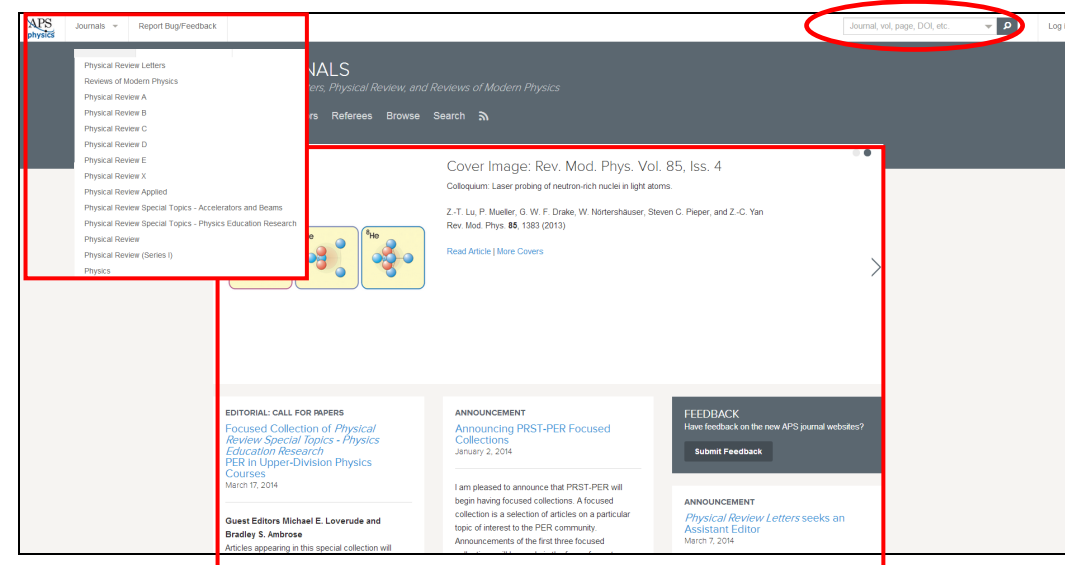
APS 物理新知線上即時看 Free Online (weekly)
<http://physics.aps.org/>

Mobile Access

- ✓ 您必須在機構 IP 範圍內登入個人帳號，於文章資料頁點選“Go Mobile”按鈕來啟用權限。
- ✓ Mobile Access 時效為期 2 周，到期後您必須再次於機構 IP 範圍內重新認證。



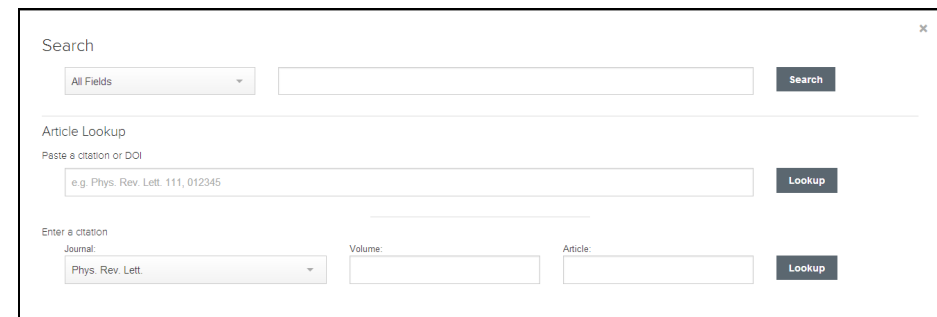
網站導覽 & 簡易檢索：<http://journals.aps.org/>



左欄方框：可下拉 **Journals** 來選擇要進入的各刊首頁

中間方框：期刊封面介紹，下方有許多 APS 新知、期刊編輯者精選內容等。

右上角橢圓：任何關鍵字快速檢索。選擇 出現檢索功能



- 各欄位查詢
- DOI / 書目資訊找文章
- 查詢特定期刊卷期文章

查詢結果利用

SEARCH RESULTS

New Search Edit Search

Results / 1-25 of 37,883

for: quantum

Sort: Most Relevant (1)

Highlights (2): ALL (791), Editors' Suggestion (562), Featured in Physics (222), PRL Milestone (7)

Category (3): ALL (2,311), Rapid Communication (2,780), Open Access (131)

Journals (4): ALL (37,883), Phys. Rev. Lett. (8,080), Phys. Rev. A (8,826), Phys. Rev. B (15,347), Phys. Rev. C (241), Phys. Rev. D (2,982), Phys. Rev. E (1,283), Phys. Rev. X (54), Phys. Rev. ST Accel. Beams (9), Phys. Rev. ST Phys. Educ. Res. (9), Rev. Mod. Phys. (201), Phys. Rev. (178), Phys. Rev. (Series I), Physics (53), Phys. Rev. Focus (20)

Date (5): Any time, Past Week, Past Month, Past Year, Custom Range

Article 1: PRA Rapid Communication Entanglement manipulation and concentration (6) 17 citations PDF Export Citation

Article 2: PRA Quantum ballistic evolution in quantum mechanics: Application to quantum computers (7) 9 citations PDF Export Citation

Article 3: PRA Quantum walks, quantum gates, and quantum computers 13 citations PDF Export Citation

Article 4: PRA Quantum computation with quantum dots and terahertz cavity quantum electrodynamics 94 citations PDF Export Citation

Article 5: PRA Quantum computing with quantum dots on quantum linear supports 18 citations PDF Export Citation

Article 6: PRD Quantum metrology for relativistic quantum fields PDF Export Citation

Article 7: PRB Quantum theory of quantum Hall smectics 81 citations PDF Export Citation

- ① **Sort** : 排序方式可依照資料新穎程度、被引用程度以及相關性程度排序。
- ② **Highlights** : 依文章特色篩選。

- ③ **Category** : 依文章類型篩選。
- ④ **Journals** : 依特定期刊篩選。
- ⑤ **Date** : 依特定出版時間篩選。
- ⑥ 文章資訊: 提供摘要可展開、全文、支援文章書目下載、被引用文章數量等文章詳細資料頁

PHYSICAL REVIEW A
atomic, molecular, and optical physics

Highlights Recent Accepted Authors Referees Search About

Quantum ballistic evolution in quantum mechanics: Application to quantum computers
Phys. Rev. A 54, 1106 – Published 1 August 1996
Paul Benioff

PDF Export Citation Citing Articles (9) Like 0 Tweet 0

ABSTRACT
AUTHORS
REFERENCES

Quantum computers are important examples of processes whose evolution can be described in terms of iterations of single-step operators or their adjoints. Based on this, Hamiltonian evolution of processes with associated step operators T is investigated here. The main limitation of this paper is to processes which evolve quantum ballistically, i.e., motion restricted to a collection of nonintersecting or distinct paths on an arbitrary basis. The main goal of this paper is proof of a theorem which gives necessary and sufficient conditions that T must satisfy so that there exists a Hamiltonian description of quantum ballistic evolution for the process, namely, that T is a partial isometry and is orthogonality preserving and stable on some basis. Simple examples of quantum ballistic evolution for quantum Turing machines with one and with more than one type of elementary step are discussed. It is seen that for nondeterministic machines the basis set can be quite complex with much entanglement present. It is also proven that, given a step operator T for an arbitrary deterministic quantum Turing machine, it is decidable if T is stable and orthogonality preserving, and if quantum ballistic evolution is possible. The proof fails if T is a step operator for a nondeterministic machine. It is an open question if such a decision procedure exists for nondeterministic machines. This problem does not occur in classical mechanics. Also the definition of quantum Turing machines used here is compared with that used by other authors. © 1996 The American Physical Society.

DOI: http://dx.doi.org/10.1103/PhysRevA.54.1106

- PDF 全文下載
- 文章書目匯出
- 被引用文章列表 (需有訂購才能使用)

注意：APS 網站請使用 Google Chrome 33.X、Firefox 27.X、IE 9&10、Safari 5 以上瀏覽器版本以達到內容功能的最佳化。

長智文化事業有限公司 IG Knowledge Ltd.
 台北市南京東路二段 72 號 8 樓 TEL: 02-25713369
Service@igrouptaiwan.com