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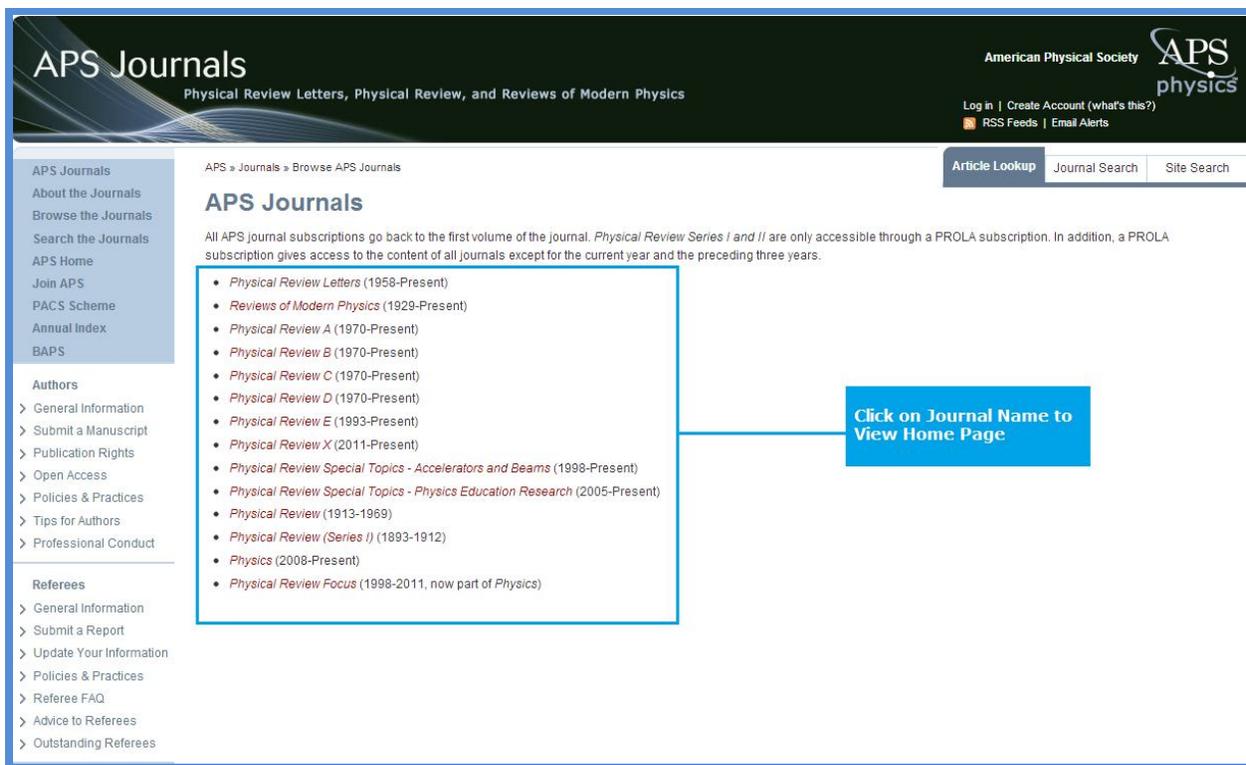
After clicking at name of the journal, homepage of particular journal is displayed. Clicking on a particular volume will fetch list of issue published in a given volume. A user can browse table of content by selecting required issue number. Articles can also be located by volume and article number using the Volume/Article lookup. Click on **Earlier Volumes** to browse archives.

Screenshot given below is table of content page in HTML format. Click on **PDF** to view full-text article in PDF format. It also provides option to navigate from one issue to another.

Screenshot given below, shows full-text article in PDF format.
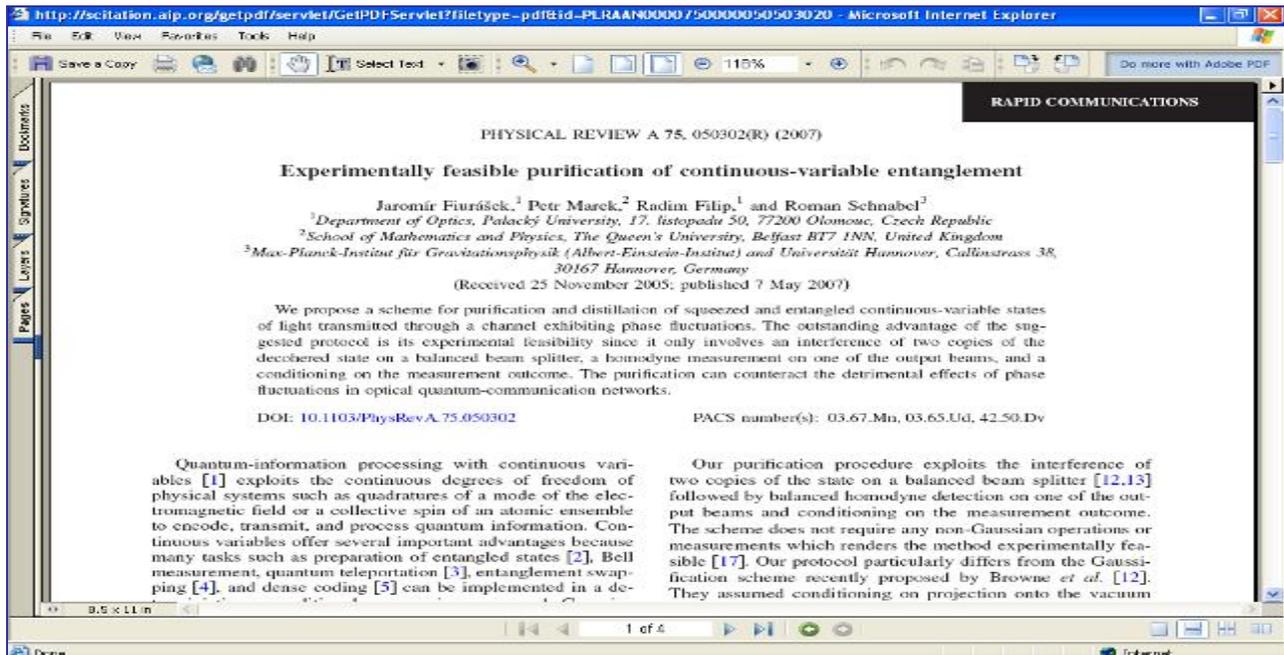
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Article Lookup Search

Article lookup Box is used to browse a specific article. It is located at the top of every page in Physical Review A-E, Physical Review Letters, Reviews on Modern Physics, Physical Review ST-AB, Physical Review ST-PER.

- ➢ In the first dropdown menu choose the journal;
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- ➢ Click on **Go** button to run a search query.

Journal Search

Journal search is a kind of simple search located before article Lookup Box on every page. In journal search, select search area from the dropdown menu then enter search term in text entry box. Click on **search** button.

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Site search is located before Journal Search on every page. It can be used to search within site.
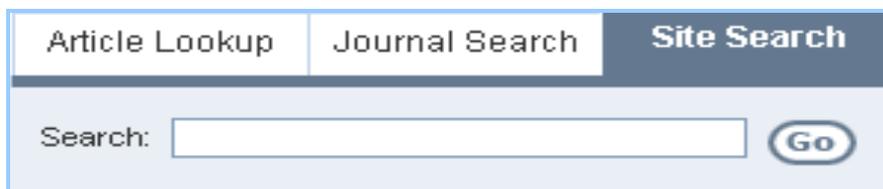
Advanced Search

Click "Search the Journals" at left navigation pan on APS homepage or click on "Search" option from specific journal's home page to execute Advanced Search. Advanced search provides option to limit the search by journal, by date range and by category. Screenshot reproduced below is an example of search for an article on "Quantum Mechanics" by **Gideon Carmi.**

Screenshot given below is output of above search query. This page provides option to refine the search, edit the search or start a new search. Click on **Show All Abstracts** to view search results with abstract. To access full text article, click on **PDF**.

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1. **Point Transformations in Qauntum Mechanics. I. The Relativistic Potential Problem**
Gideon Carmi
Phys. Rev. D **7**, 1038 – Published 15 February 1973
Cited 1 times - Hide Abstract - View PDF
We derive a unitary transformation which transforms a Hamiltonian of the form $(p^2+m^2)^{1/2}-(m^2)^{1/2}+V(x)$ into $p^2/2\mu+V(1/2xQ+1/2Qx)$, where μ=const, $(x, p)=i\hbar$, and $\{Q=Q(p), =(p^2+4)^{1/2}/p^2+2\arccos h1/2(p^2+2)/\arccos h1/2[(p^2+2)^2-2]\}\{(\approx 1/2p$ for large $p)\}$ Classically, $p=-\dot{V}Q$, i.e., instead of incorporating the increase of inertia with velocity into the *kinetic* term of the Hamiltonian, it is equally possible to do so by making the *potential* part velocity-dependent, in just such a way that it will find it increasingly difficult to accelerate a particle with *constant* mass as the velocity grows. The generator of the transformation is $S=[xf(p)+f(p)x]/2\hbar$, where $f(p)=-1/2(\ln 2)(p^2+4)^{1/2}\arccos h1/2(p^2+2)$. Some other related transformations are given and some applications are indicated. This paper is the first of a series in which quantum-mechanical point transformations will be discussed; in particular, S will be found in closed form for which $e^{-iS}(p$ or $x)e^{iS}=\omega(p)$ or $\omega(x)$, or where ω is any prescribed function belonging to a wide family of functions, with the object of applications to superfluidity and quantum plasmas.

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