



IOPscience

User guide

iopscience.org

IOP Publishing

Search...

Perform a quick search

This is a **fielded search** from the homepage or from the top right of every page in IOPscience. The default is set to search all fields, but you can narrow it down to Title/Abstract, Author and/or Full Text, as well as Date Range.

Make it personal

Creating an account will allow you to benefit from **personalization** options. By telling us your subject interests, we will be able to provide you with a tailored homepage, showing you the latest articles that have been published in your area.

Use the search channel

This is also a **fielded search** with the default set to all fields. This feature allows you to narrow your search down further by selecting **subjects** and/or **journals**. You can also enter the specific dates you wish to search.

The screenshot shows the IOPscience search interface. At the top, there's a navigation bar with links like HOME, SEARCH, PAGES & MORE, JOURNALS, ABOUT, and CONTACT US. Below this is a search bar with a dropdown menu for 'All Fields' and a 'SEARCH NOW' button. To the left of the search bar, there are two columns of subject and journal filters. The 'SUBJECTS' column lists various fields of study, and the 'JOURNALS' column lists specific journals. The search results section shows '0 Results' and a 'Find Content' button.

The screenshot shows the IOPscience homepage. At the top, there's a navigation bar with links like HOME, SEARCH, PAGES & MORE, JOURNALS, ABOUT, and CONTACT US. Below this is a search bar with a dropdown menu for 'All Fields' and a 'SEARCH NOW' button. To the right of the search bar, there's a 'Quick Search' section with a 'Find Content' button. Below the search bar, there's a 'Welcome to IOPscience' message and a 'Pinpoint content' section with a magnifying glass icon. The 'Pinpoint content' section includes a 'Find Content' button and a 'Find Content' button. Below the search bar, there's a 'Solutions for certain classes of the Riccati differential equation' section and a 'Nasser Sadati et al 2007' section.

Pinpoint content


Find a **specific article** quickly and easily using the content finder. You can narrow right down to a specific journal title, volume and issue number.

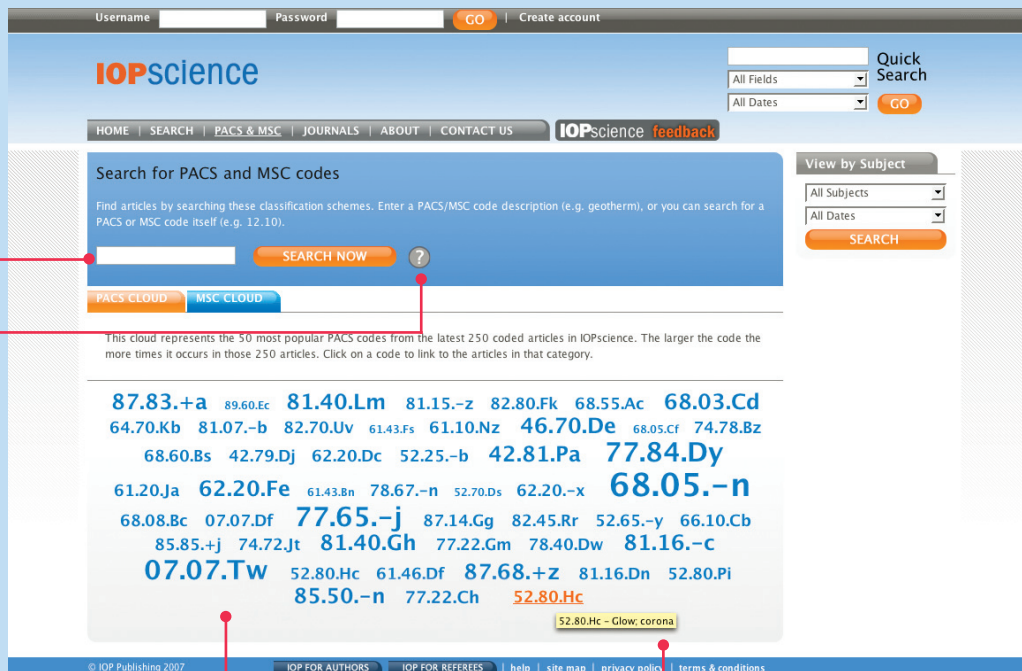
Classified information

IOPscience content has been classified by over **6,000 PACS** and **MSC codes** in physics, astronomy and math making each and every article highly discoverable. You can interact with these codes in a multitude of ways.

Use the PACS or MSC code

If you know the PACS or MSC code, you can enter it into the search box, or enter your search term to find the relevant codes.

Click on the  to find out more about PACS and MSC codes or visit www.aip.org/pacs and www.ams.org/msc



The screenshot shows the IOPscience website interface. At the top, there are fields for Username and Password, a GO button, and a Create account link. Below this is the IOPscience logo and a navigation bar with links: HOME, SEARCH, PACS & MSC, JOURNALS, ABOUT, CONTACT US, and IOPscience feedback. A search bar is prominently displayed with the text "Search for PACS and MSC codes" and a subtext "Find articles by searching these classification schemes. Enter a PACS/MS code description (e.g. geotherm), or you can search for a PACS or MSC code itself (e.g. 12.10)." There is a search input field, a "SEARCH NOW" button, and a help icon (?). Below the search bar are two buttons: "PACS CLOUD" and "MSC CLOUD". A text box explains: "This cloud represents the 50 most popular PACS codes from the latest 250 coded articles in IOPscience. The larger the code the more times it occurs in those 250 articles. Click on a code to link to the articles in that category." Below this is a tag cloud of codes. A mouseover tooltip is shown for the code "52.80.Hc", displaying "52.80.Hc - Glow; corona". At the bottom, there is a footer with copyright information and links for IOP FOR AUTHORS, IOP FOR REFEREES, help, site map, privacy policy, and terms & conditions.


Username Password | Create account

IOPscience

HOME | SEARCH | PACS & MSC | JOURNALS | ABOUT | CONTACT US | **IOPscience** feedback

Search for PACS and MSC codes

Find articles by searching these classification schemes. Enter a PACS/MS code description (e.g. geotherm), or you can search for a PACS or MSC code itself (e.g. 12.10).



This cloud represents the 50 most popular PACS codes from the latest 250 coded articles in IOPscience. The larger the code the more times it occurs in those 250 articles. Click on a code to link to the articles in that category.

87.83.+a 89.60.Ec 81.40.Lm 81.15.-z 82.80.Fk 68.55.Ac 68.03.Cd
64.70.Kb 81.07.-b 82.70.Uv 61.43.Fs 61.10.Nz 46.70.De 68.05.Cf 74.78.Bz
68.60.Bs 42.79.Dj 62.20.Dc 52.25.-b 42.81.Pa 77.84.Dy
61.20.Ja 62.20.Fe 61.43.Bn 78.67.-n 52.70.Ds 62.20.-x 68.05.-n
68.08.Bc 07.07.Df 77.65.-j 87.14.Gg 82.45.Rr 52.65.-y 66.10.Cb
85.85.+j 74.72.Jt 81.40.Gh 77.22.Gm 78.40.Dw 81.16.-c
07.07.Tw 52.80.Hc 61.46.Df 87.68.+z 81.16.Dn 52.80.Pi
85.50.-n 77.22.Ch 52.80.Hc
52.80.Hc - Glow; corona

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Tag Clouds

You can also use the PACS and MSC clouds to discover relevant content. These clouds visually represent the 50 most popular codes from the latest 250 articles in IOPscience. The larger the font, the more times that code appears in the last 250 articles.

Mouse over a code to see its full description.

Explore...

IOP journal titles also have their own homepages within IOPscience. From each homepage there are multiple options for getting into the journal's content.

Journal search

You can run a quick fielded search which is defaulted to search specifically within this journal.

Accessing journal content

Link straight to the latest complete issue...

use the volume listings if you are looking for something specific...

or see the very latest articles to be published in the journal.

The screenshot shows the IOPscience website for the journal **Nanotechnology**. The page layout includes a top navigation bar with a login section (Username, Password, GO, Create account), a search bar, and a 'Quick Search' button. Below the navigation bar is a 'HOME | SEARCH | PACS & MSC | JOURNALS | ABOUT | CONTACT US' menu. The main content area is divided into several sections:

- Journal Information:** A blue box containing the journal title 'Nanotechnology', a description of the journal's scope, ISSN numbers (0957-4484 (Print), 1361-6528 (Online)), and the 'Latest Issue (Complete)' (Number 36, 12 September 2007, 365101-365709).
- Editorial & News:** A section titled 'Subject sections' listing various topics such as 'Biology and medicine', 'Electronics and photonics', 'Patterning and nanofabrication', 'Quantum phenomena', 'Sensing and actuating', 'Materials: synthesis or self-assembly', 'Materials: properties, characterization, modelling or tools', and 'Where structure, properties or observation on the nanometer scale are critical'.
- Volume Listings:** A section with dropdown menus for 'Current volume' (Number 36, 12 September 2007) and 'Journal archive' (Vol 18, 2007), each with a 'GO' button. It also includes a 'Forthcoming Articles' section.
- Latest Articles:** A section listing recent articles, including 'Spray deposition of electrosput TiO₂ nanorods for dye-sensitized solar cell' and 'Controlled damaging and repair of self-organized nanostructures by atom manipulation at room temperature'.
- Journal Links:** A sidebar on the right with a '3.037 2006 Impact Factor' badge and a list of links: 'Journal home', 'Editorial information', 'Scope', 'Editorial board', 'Author benefits', 'Submission addresses', 'Abstracted in', 'nano@iop.org', and 'Submit an article'.
- View by Subject:** A sidebar with dropdown menus for 'All Subjects' and 'All Dates', and a 'SEARCH' button.
- Popular Articles:** A sidebar listing 'Journal: Nanotechnology In the last 30 days' with a list of articles, including 'Focused ion beam milling of nanocavities in single colloidal particles and self-assembled opals'.

Red arrows from the text on the left point to the following features on the page:


- From 'Journal search': Points to the 'Quick Search' button.
- From 'Accessing journal content': Points to the 'Latest Issue (Complete)' link.
- From 'use the volume listings if you are looking for something specific...': Points to the 'Current volume' dropdown menu.
- From 'or see the very latest articles to be published in the journal.': Points to the 'Latest Articles' section.

Filter...

IOPscience's sophisticated filtering system will help you to drill further into your search results.

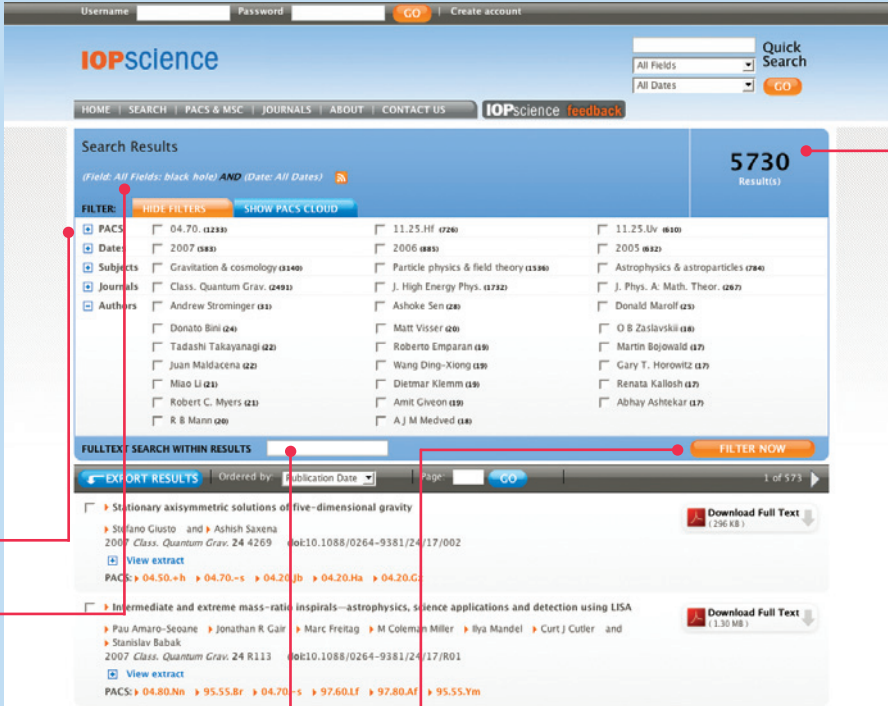
You can filter by the following categories:

- PACS
- Dates
- Subjects
- Journals
- Authors


Use the blue  buttons to expand each filter category, and then check the relevant filter options.

You can keep track of your search path in the top of the filter panel.

You can also enter a further search term to perform a full text search within your initial set of results.




The screenshot shows the IOPscience website interface. At the top, there are fields for Username and Password, a GO button, and a Create account link. The IOPscience logo is prominently displayed. Below the logo, there are navigation links: HOME, SEARCH, PACS & MSC, JOURNALS, ABOUT, and CONTACT US. A feedback link is also present. On the right side, there is a Quick Search section with dropdown menus for All Fields and All Dates, and a GO button. The main content area is titled 'Search Results' and shows a list of results. A results counter in the top right corner indicates 5730 results. The filter panel on the left side of the results list includes categories like PACS, Date, Subjects, Journals, and Authors, each with a blue plus icon to expand the list. The results list itself shows a table of search results with columns for PACS, Date, Subjects, Journals, and Authors. Annotations with red lines point to various elements: the filter categories, the results counter, the 'FILTER NOW' button, the 'FULLTEXT SEARCH WITHIN RESULTS' field, and the 'EXPORT RESULTS' button.

When you hit , the results list will update to correspond with your chosen filters.

The useful **results counter** immediately tells you how many results you've returned. With each filter that you apply, your count will be adjusted, so you will always know how many articles will match your query.

Discover...

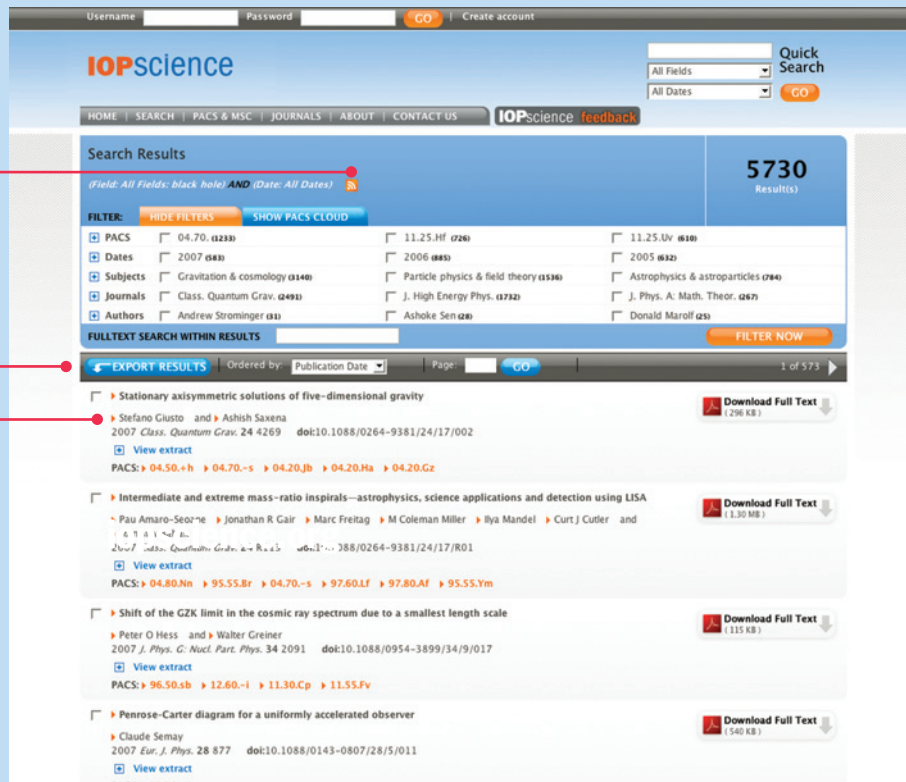
RSS feeds

Click on the  button to set up a feed for any search, so that new content matching your specific search criteria will be fed straight to your desktop.

Export your results

You can export your results into your preferred format.

Link to other papers by the same authors.



The screenshot displays the IOPscience website interface. At the top, there is a navigation bar with links for HOME, SEARCH, PACS & MSC, JOURNALS, ABOUT, and CONTACT US. A search bar is located on the right, with a 'Quick Search' button. Below the navigation bar, the search results are displayed. The search criteria are '(Field: All Fields; black hole) AND (Date: All Dates)'. The results are filtered by PACS, Dates, Subjects, Journals, and Authors. The first result is 'Stationary axisymmetric solutions of five-dimensional gravity' by Stefano Giusto and Ashish Saxena, published in 2007 in Class. Quantum Grav. The second result is 'Intermediate and extreme mass-ratio inspirals—astrophysics, science applications and detection using LISA' by Pau Amaro-Seoane et al., published in 2007 in J. Phys. G: Nucl. Part. Phys. The third result is 'Shift of the GZK limit in the cosmic ray spectrum due to a smallest length scale' by Peter O Hess and Walter Greiner, published in 2007 in J. Phys. G: Nucl. Part. Phys. The fourth result is 'Penrose-Carter diagram for a uniformly accelerated observer' by Claude Semay, published in 2007 in Eur. J. Phys. Each result includes a 'Download Full Text' button and a 'View extract' link. The page number is 1 of 573.

Social bookmarking

A popular way to store, classify, share and search links, these facilities are available from the abstract page of every article.

Find related articles

By clicking on **RELATED ARTICLES** you will find more articles similar to the one you are currently viewing. You can also click on the PACS, MSC and subject links to find other articles classified in the same way.

Linked references and citations

These allow you to explore backward and forward links between papers. References are also linked within the full text PDFs, allowing you to read cited articles while studying a paper.

Search History

See the last 10 articles you viewed, at the abstract level.

The screenshot displays the IOPscience website interface. At the top, there is a navigation bar with links for HOME, SEARCH, PACS & MSC, JOURNALS, ABOUT, and CONTACT US. The main content area features the article title, authors (Laurent Freidel and David Louapre), and their affiliations. Below this, there are tabs for ARTICLE, REFERENCES, CITED BY, and RELATED ARTICLES. The RELATED ARTICLES tab is active, showing a list of related articles with their titles, authors, and publication details. On the right side, there is a Quick Search box and a list of Article Links (Post to del.icio.us, Post to Furl, Post to CiteULike, Post to Connotea, Post to Bibsonomy). At the bottom, there is a section for Last 10 Articles, listing the most recent articles viewed by the user.

Username Password

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All Fields Quick Search
All Dates
All Journals ☐ This Journal only ☐

Article Links

- Post to del.icio.us
- Post to Furl
- Post to CiteULike
- Post to Connotea
- Post to Bibsonomy

View by Subject

All Subjects
All Dates

Ponzano-Regge model revisited: I. Gauge fixing, observables and interacting spinning particles

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Journal Classical and Quantum Gravity

Issue Volume 21, Number 24

Citation Laurent Freidel, and David Louapre
2004 *Class. Quantum Grav.* 21 5685 doi:10.1088/0264-9881/21/24/002

ARTICLE **REFERENCES** **CITED BY** **RELATED ARTICLES**

(494 KB)

Abstract We show how to properly gauge fix all the symmetries of the Ponzano-Regge model for 3D quantum gravity. This amounts to doing explicit finite computations for transition amplitudes.

PACS [04.60.Pp](#) Loop quantum gravity, quantum geometry, spin foams
[11.15.-q](#) Gauge field theories
[02.20.Uu](#) Quantum groups

MSC [81T13](#) Yang-Mills and other gauge theories (See also 53C07, 58E15)
[17B37](#) Quantum groups (quantized enveloping algebras) and related deformations (See also 16W35, 20C42, 81R50, 82B23)

Subjects [Gravitation & cosmology](#)

Dates Issue 24 (21 December 2004)
Received 22 January 2004, in final form 10 September 2004
Published 22 November 2004
[Back to search results](#)

Last 10 Articles

1. Ponzano-Regge model revisited: I. Gauge fixing, observables and interacting spinning particles
Laurent Freidel and David Louapre
2004 *Class. Quantum Grav.* 21 5685
2. Exact Bianchi identity in Regge gravity
Herbert W Hamber and Geoff Kugel
2004 *Class. Quantum Grav.* 21 5915

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