

Sinteza prezentarii activitatii grupului de lucru pentru analiza fizicii in cadrul utilizarii directe a Web of Science

1. Obiective concrete

Grupul de lucru a avut ca obiectiv principal obtinerea unei radiografii a domeniului fizicii din Romania in perioada 2001-2009 prin utilizarea directa a informatiilor cuprinse in Web of Science si a analizei acestora in context. In acest scop au fost analizate publicatiile ISI din acest interval pe domenii ca si citarile obtinute de aceste publicatii.

2. Metodologie si proceduri

- obtinerea din Web of Science a datelor din Science Citation Index aferente perioadei 2001-2009 pentru Romania.
- filtrarea rezultatelor prin excluderea rezumatelor sau a altor materiale editoriale nerelevante din punct de vedere al cercetarii stiintifice
- obtinerea listingului de publicatii pentru un anumit domeniu (Subject Area) prin rafinarea datelor

Domenii principale de fizica

Physics, Applied	3277
Physics, Atomic, Molecular & Chemical	502
Physics, Nuclear	890
Optics	2169
Physics, Multidisciplinary	1532
Physics, Particles & Fields	564
Physics, Condensed Matter	1560
Physics, Mathematical	758
Physics, Fluids & Plasmas	240

Domenii secundare de fizica

-Acoustics	sub prag
-Astronomy and Astrophysics	266
-Biophysics	186
-Crystallography	397
-Mechanics	561
-Nanoscience & Nanotechnology	294
-Nuclear Science & Technology	546
-Spectroscopy	319
-Thermodynamics	296

Alte domenii cu contributii substantiale ale fizicii

-Chemistry, Inorganic & Nuclear	514
-Chemistry, Physical	1453
-Computer Science, Interdisciplinary Applications	263
-Computer Science, Theory &Methods	491
-Geochemistry &Geophysics	167
-Geosciences, Multidisciplinary	238
-Instruments&Instrumentation	504
-Materials Science, Biomaterials	sub prag
-Materials Science, Ceramics	296
-Materials Science, Characterization &Testing	sub prag
-Materials Science, Coatings &Films	371
-Materials Science, Composites	121
-Materials Science, Multidisciplinary	3956
-Mathematics, Applied	1657
-Multidisciplinary Sciences	204
-Radiology, Nuclear Medicine&Medical Imaging	164

3. Stadiu, rezultate preliminare obtinute

- pana in prezent au fost analizate majoritatea subdomeniilor de fizica propuse
- analiza rezultatelor este in curs
- cateva exemple de rezultate preliminare vor fi date mai jos

Exemple de indicatori scientometrici

Publicatii

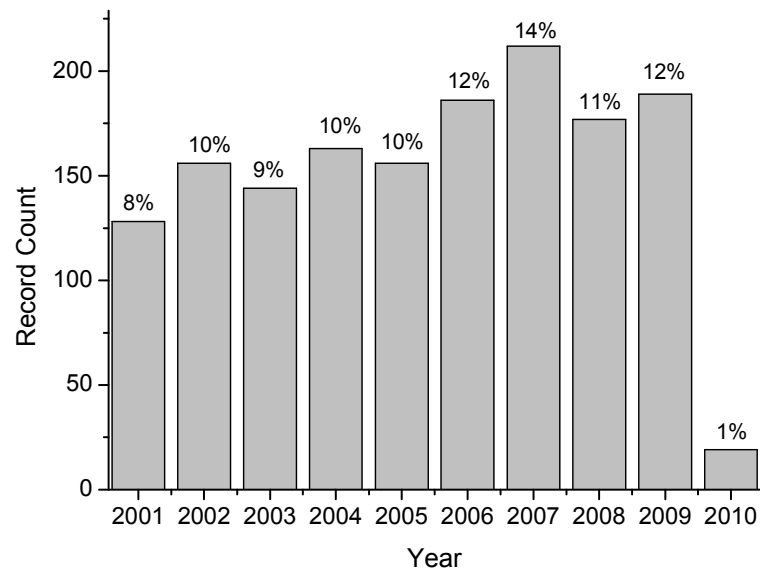
Procedurile de analiza ale unui anumit domeniu (Subject Area) au fost:

-**analiza pe ani** a publicatiilor

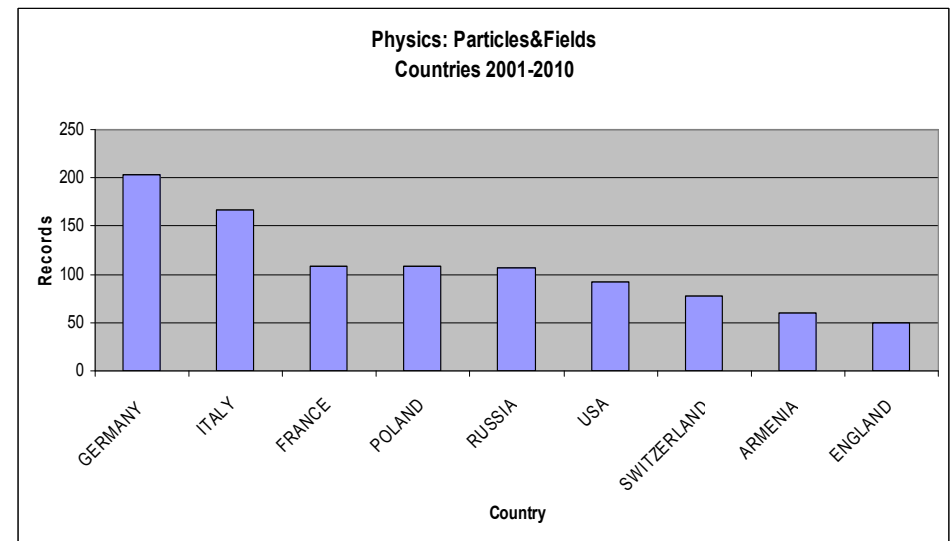
de ex: in cazul domeniului Physics, Condensed Matter

-**analiza pe tari** a publicatiilor in scopul detectarii fractiei de publicatii rezultate prin cooperare internationala

de ex. :in cazul domeniului Physics, Particles &Fields



Physics, Condensed Matter



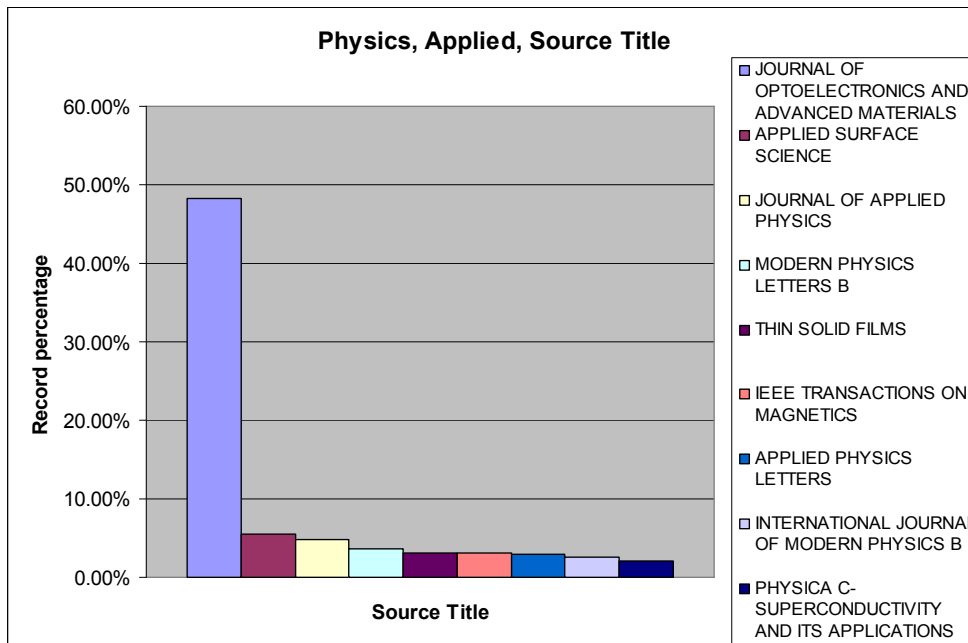
Physics, Particles&Fields

-analiza pe titluri de reviste in care s-au publicat respectivele articole dintr-un domeniu

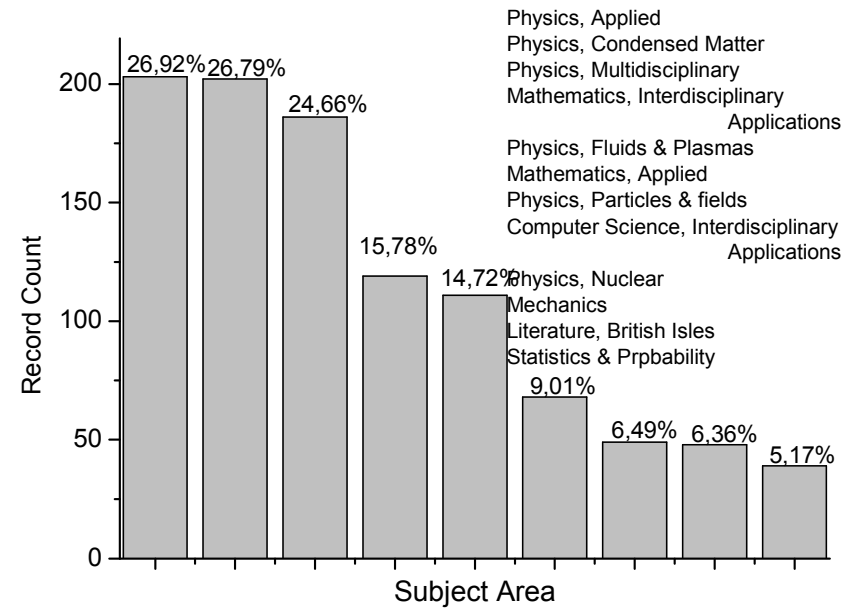
de ex. in cazul domeniului Physics, Applied

-analiza pe interconexiuni cu alte domenii

de ex. Physics, Mathematical



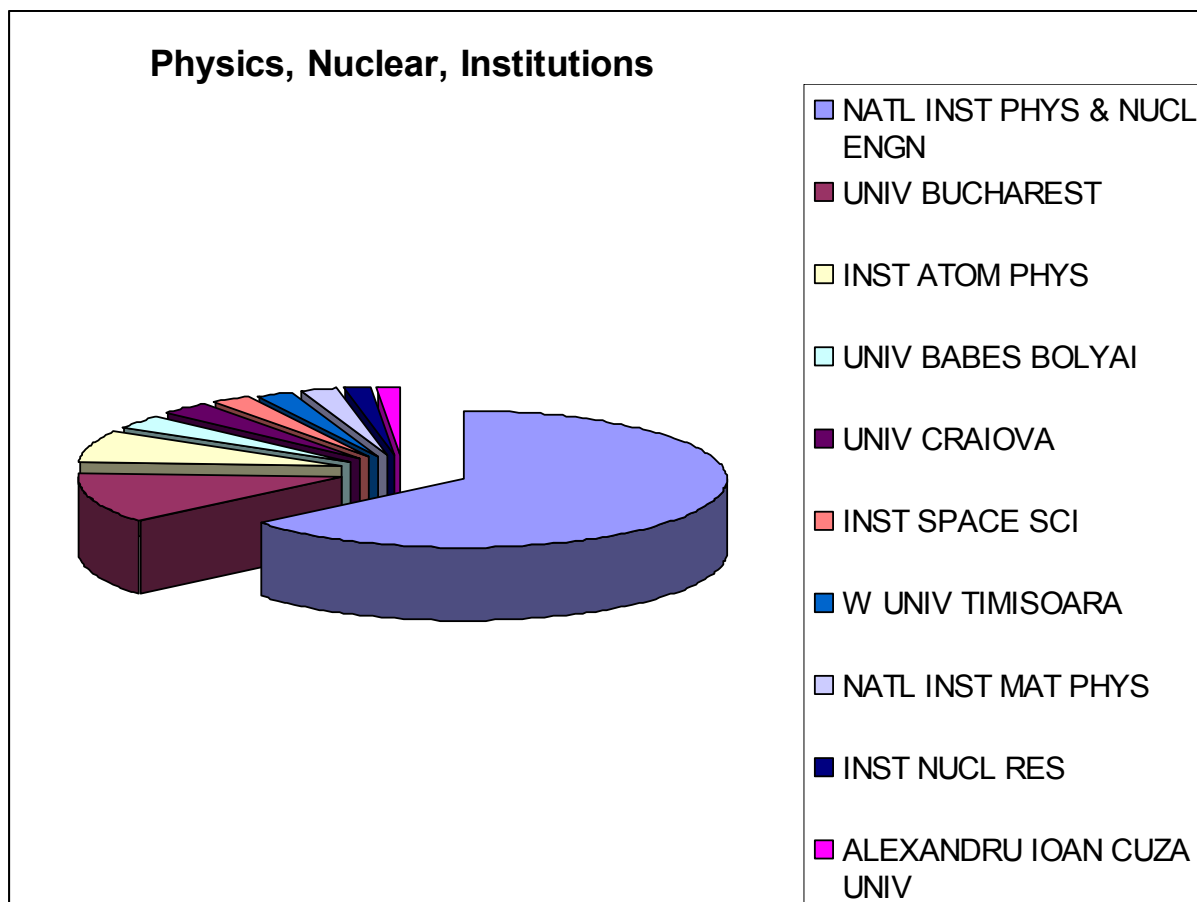
Physics, Applied



Physics, Mathematical

-analiza pe institutii care au contribuit la articolele din domeniul respectiv

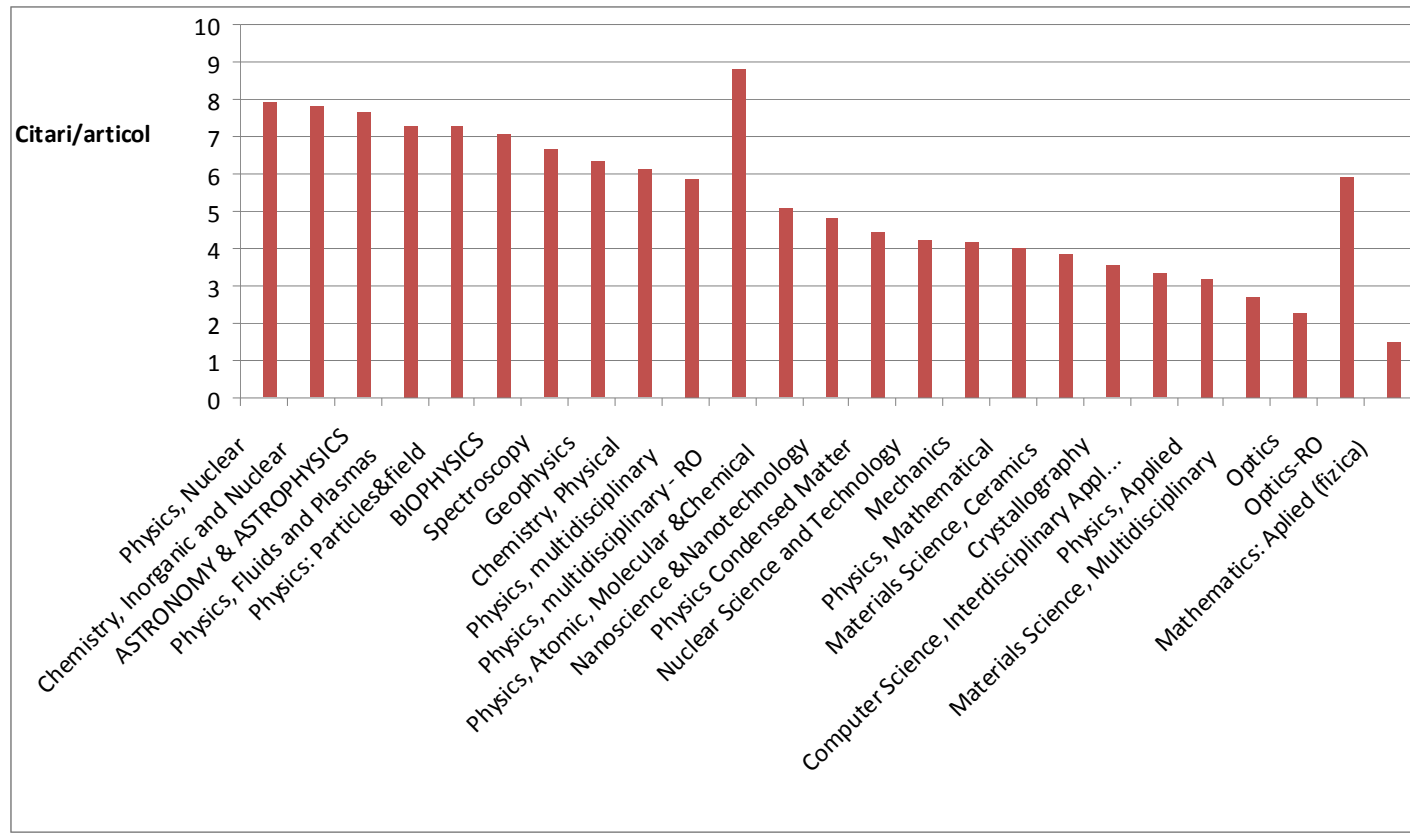
de ex. Physics, Nuclear

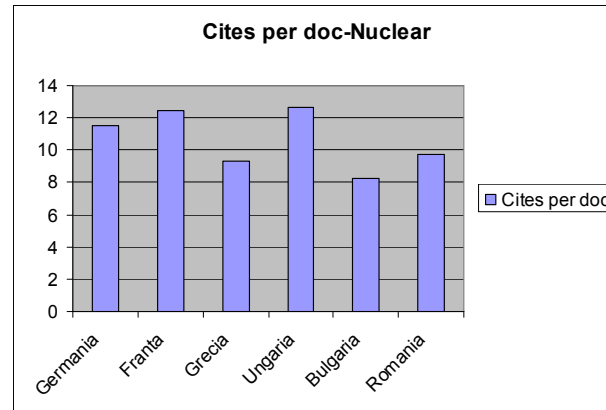
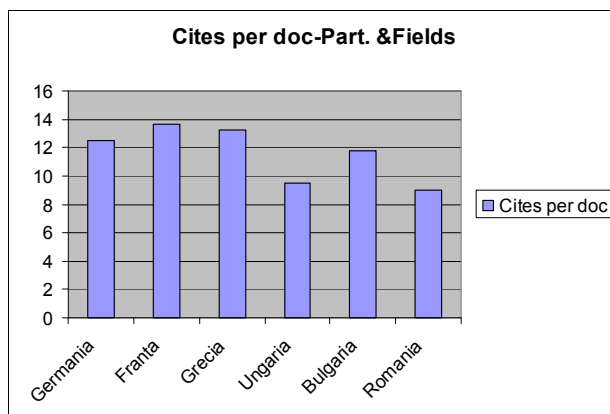
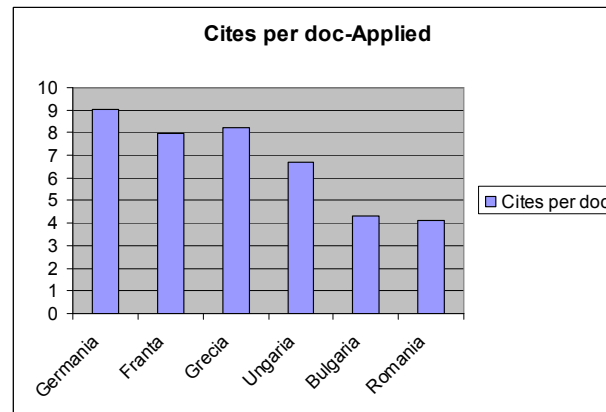
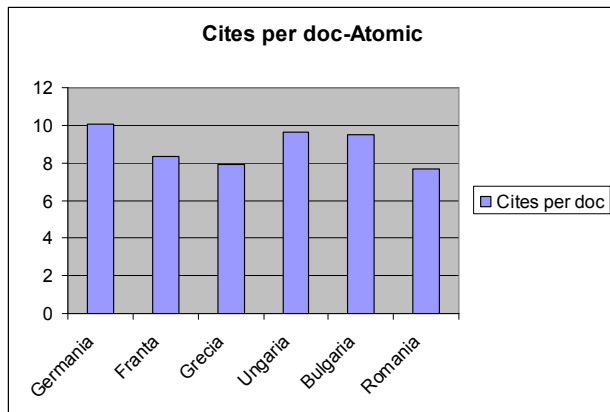


Citari

Pentru citari in cazul fiecarui domeniu au fost luati in considerare urmatoorii parametri:

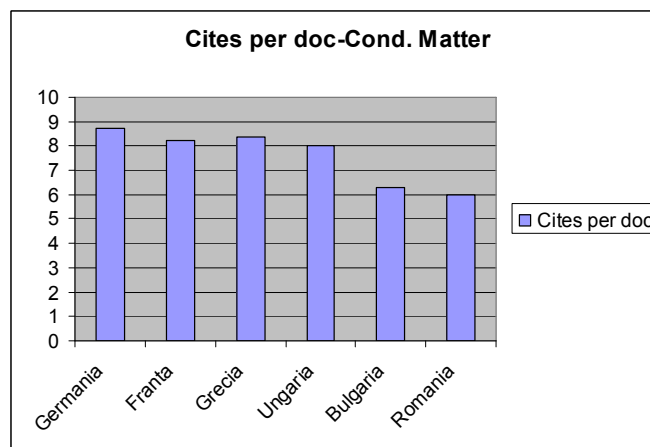
- Numar articole pe domeniu
- Numar global citari
- Proportia de lucrari citate
- Valoare medie (citari/articol)

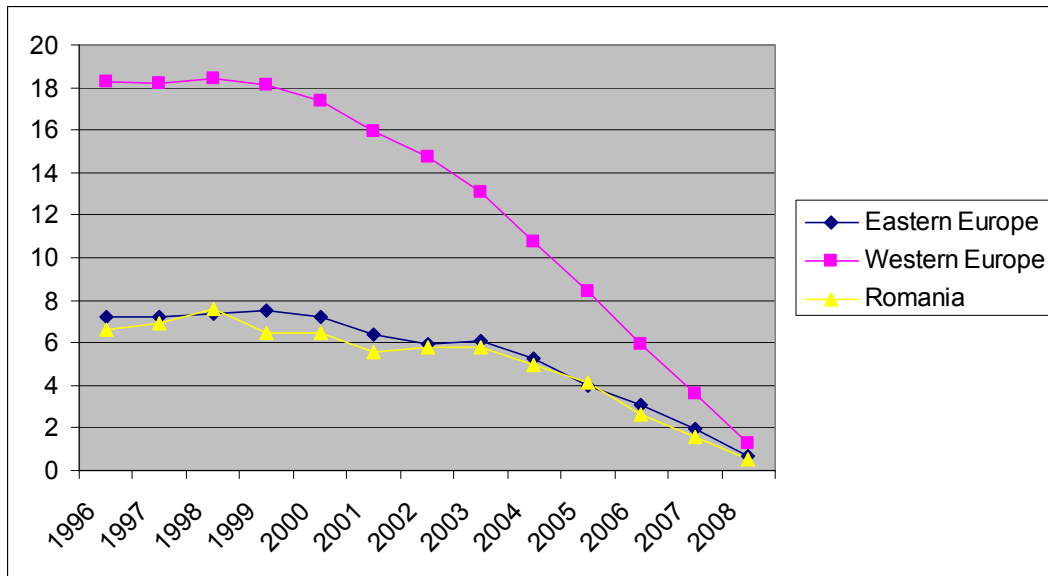




Fizica atomica, fizica nucleara, fizica materiei condensate si fizica particulelor au valori ale nr. citari/doc mai mici doar cu 20% fata de tarile avansate europene in timp ce fizica aplicata este caracterizata de valori cu 50% mai mici

Datele primare provin din (SCImago Journal & Country Rank - <http://www.scimagojr.com>)

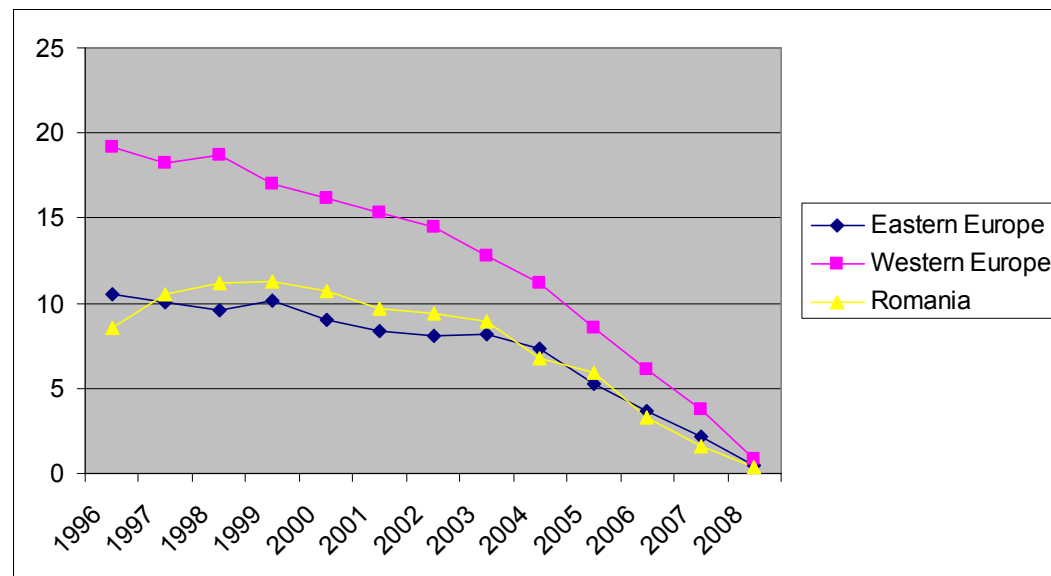




Parametrul citari/doc este pentru toate ramurile stiintei mai mic cu 50% fata de media europeana vestica; acelasi parametru in cazul fizicii are un ecart inferior de cca 25-30%

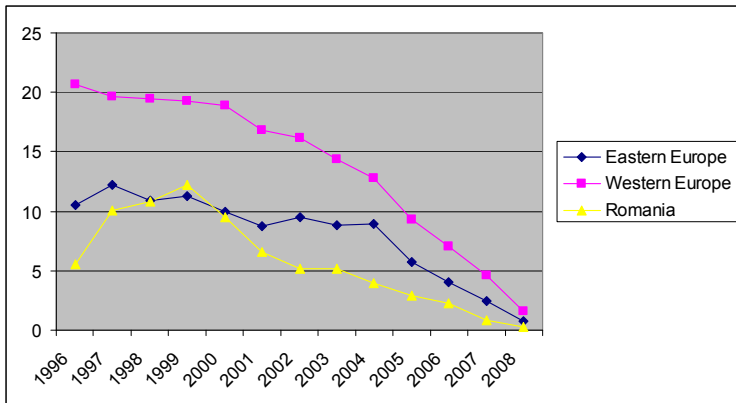
All

Cites per doc in physics and all science branches in Romania and East and West Europe

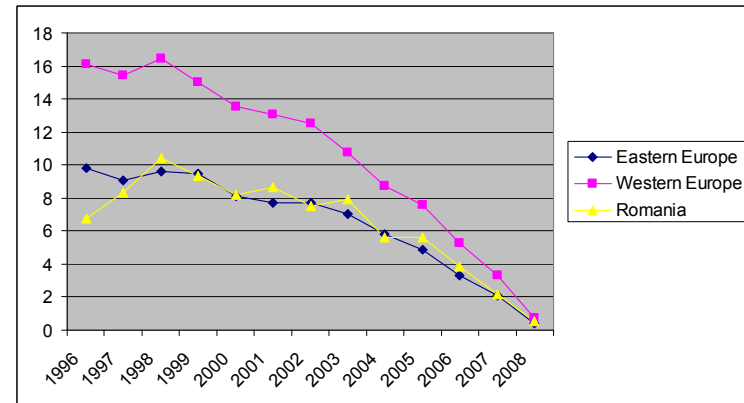


Physics

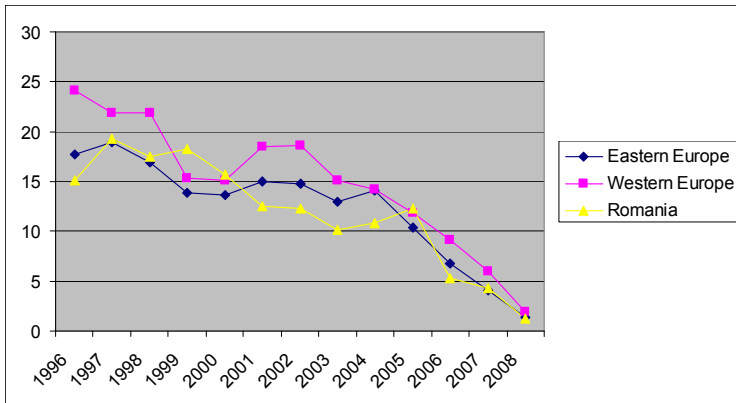
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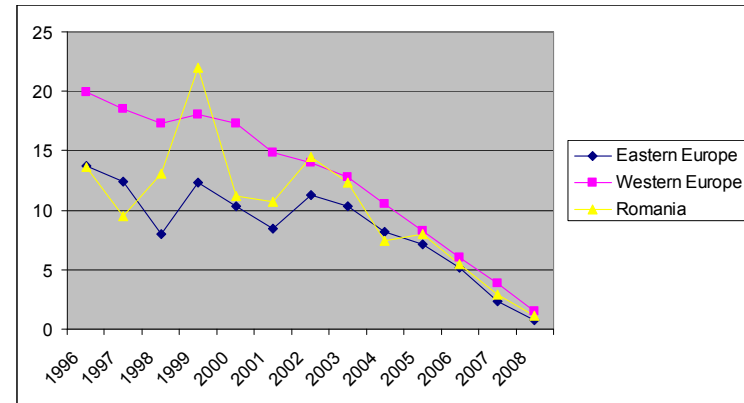
Atomic



Condensed Matter



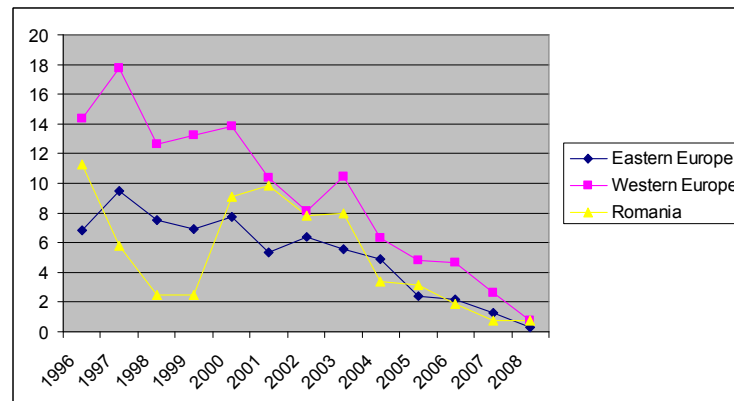
Nuclear and High Energy Physics



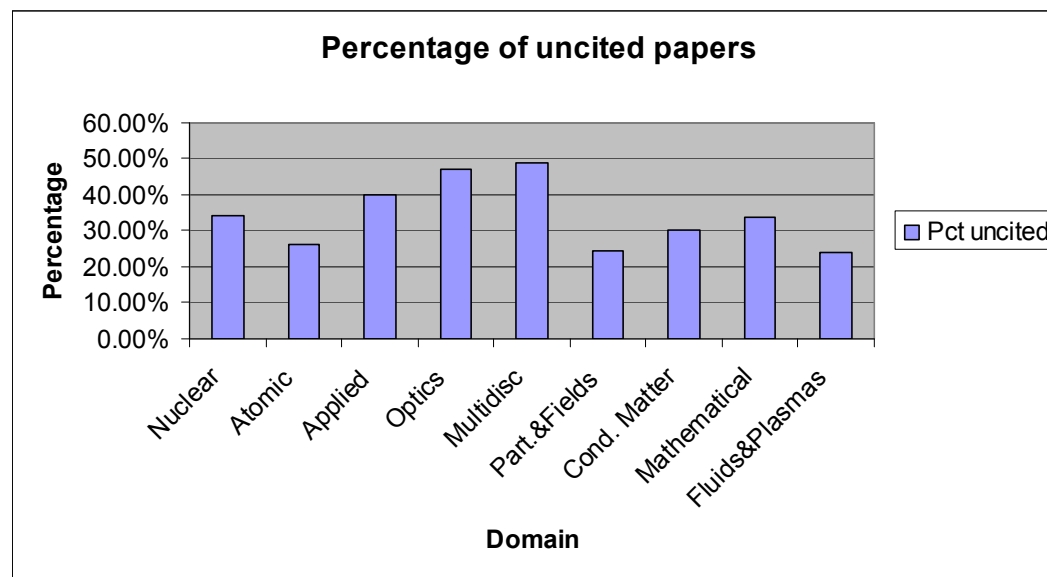
Surfaces and Interfaces

Cites per doc in some physics fields

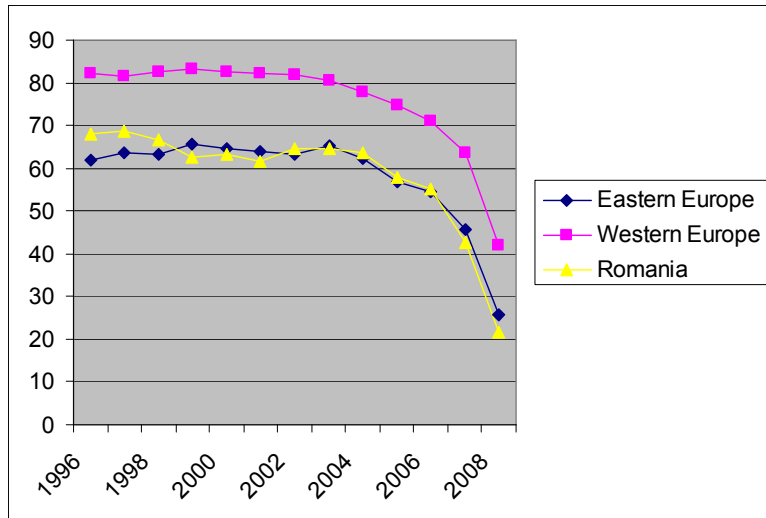
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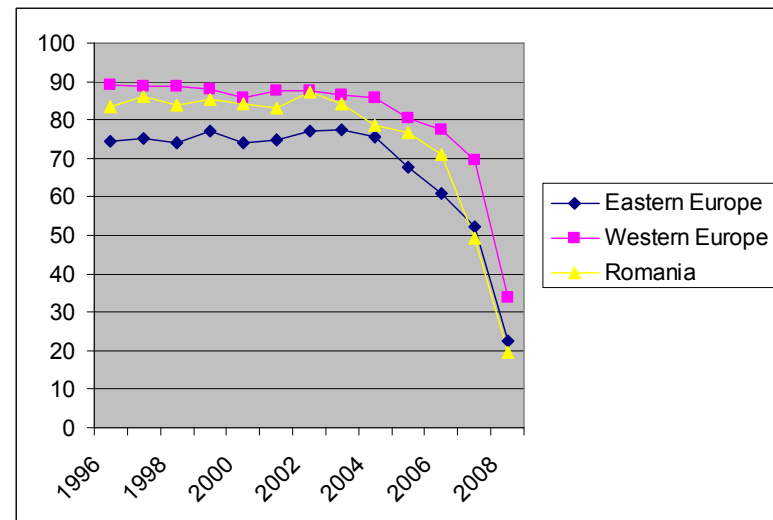
Radiation



% cited documents

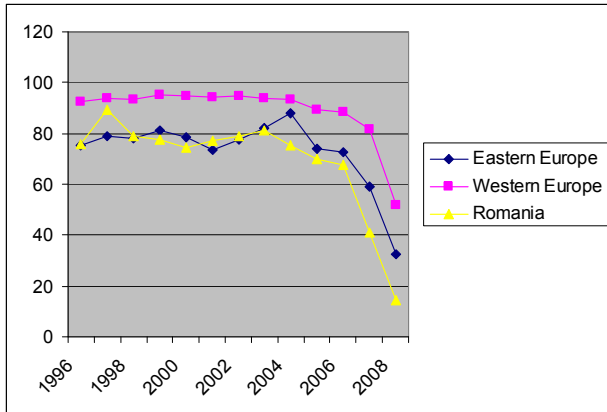


All

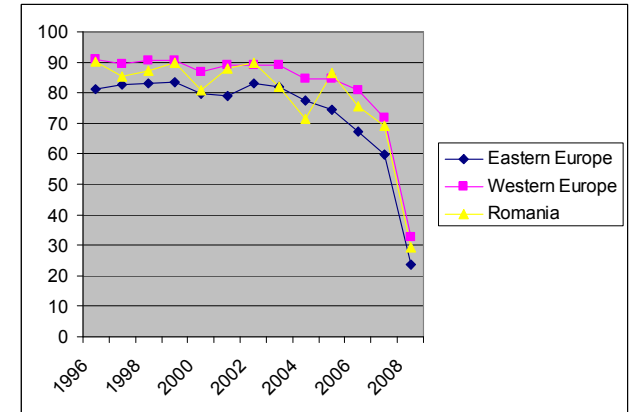


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Country Rank -
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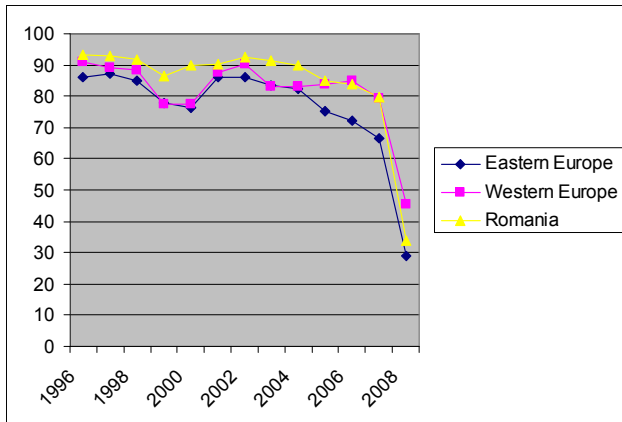
Physics



Atomic

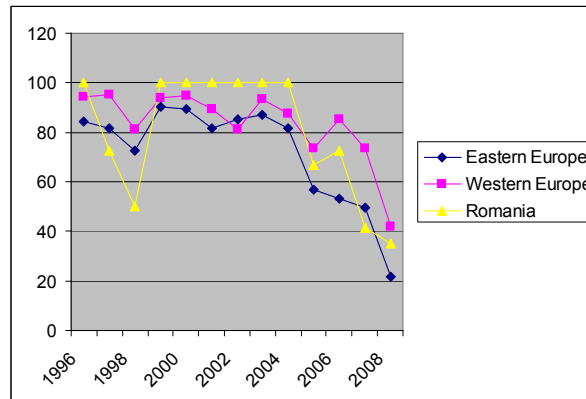


Condensed Matter



Nuclear and High Energy Physics

Datele primare provin din
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Country Rank -
<http://www.scimagojr.com>)

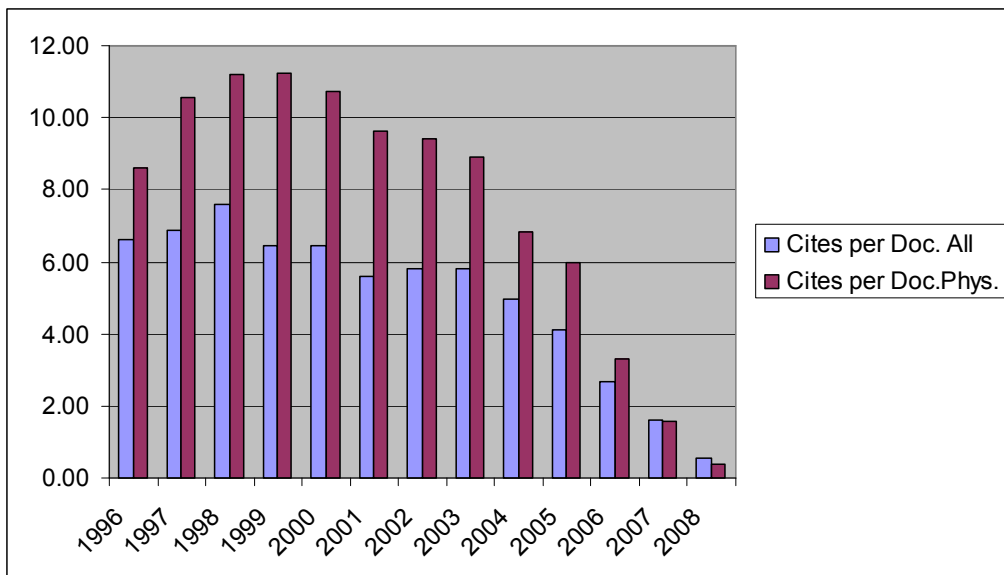


Surfaces and Interfaces

Radiation

% cited documents
in various fields of
physics

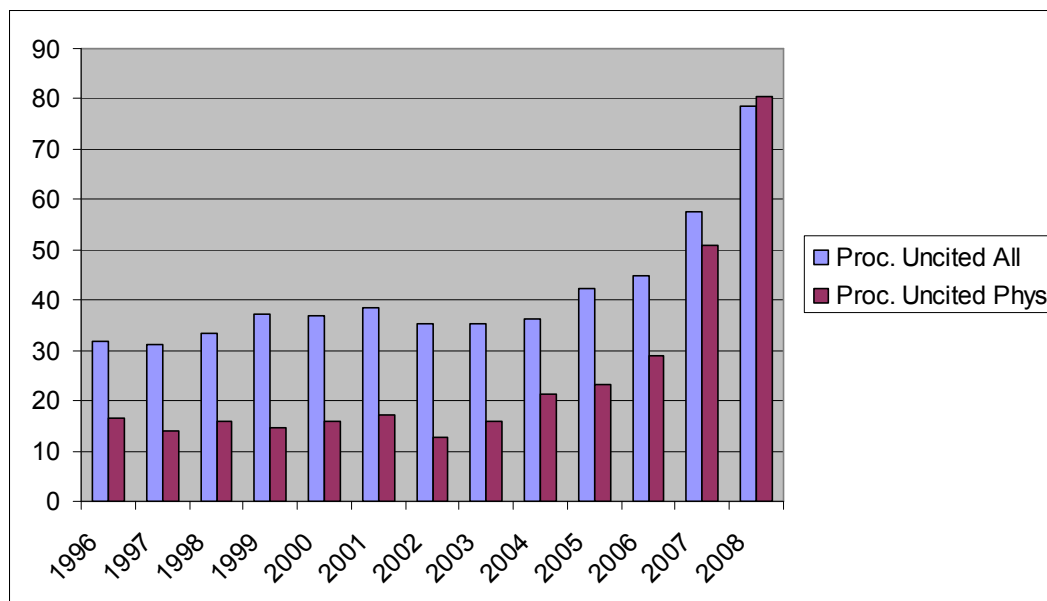
Comparison between Physics and all science branches in Romania

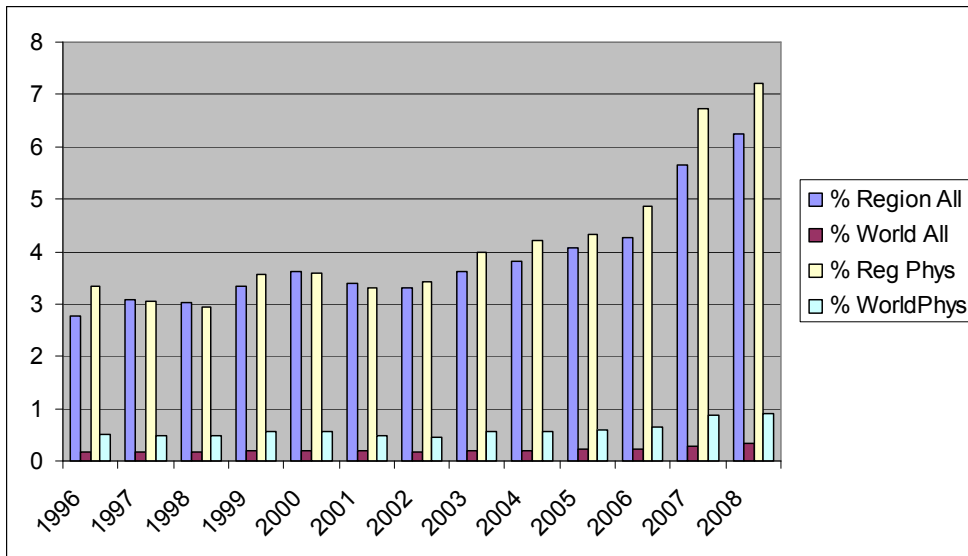


Cites per Physics and all science branches in Romania

Percentage of uncited papers In Physics and all science branches in Romania

Datele primare provin din
(SCImago Journal &
Country Rank -
<http://www.scimagojr.com>)

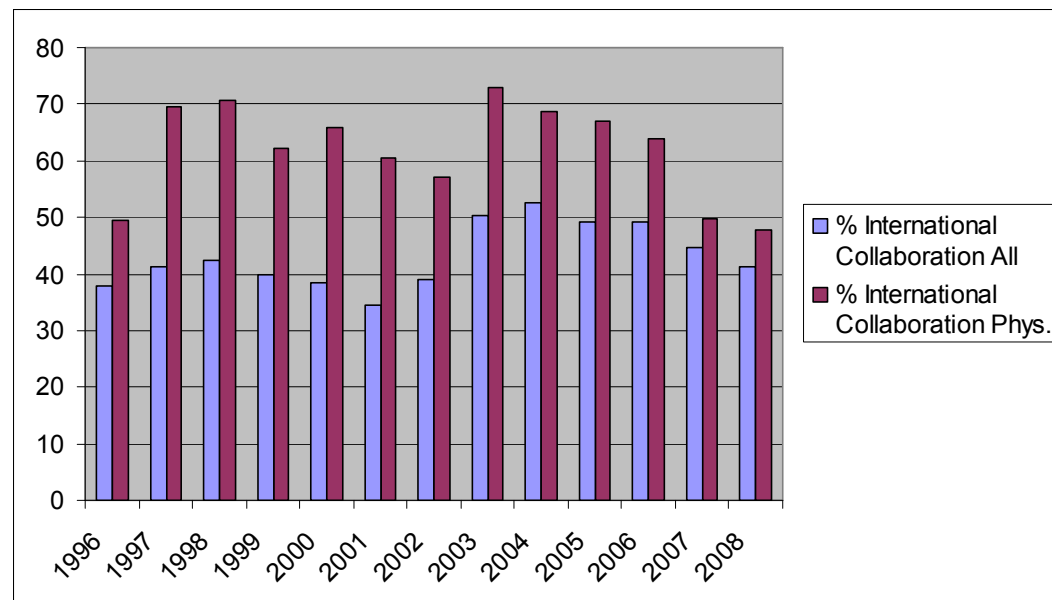




Incepand din 2003 fizica romaneasca a depasit procentul mediu de contributie a tuturor disciplinelor in sud-estul european fiind in ultimii doi ani cu un procent mai mare. Pe plan mondial, contributia fizicii este de aproape trei ori mai mare fata de cea a tuturor disciplinelor cumulate

Percentage of Romanian papers (physics and all science branches) in the South East Europe and in the world

Percentage of Romanian papers (physics and all science branches) elaborated by international collaboration



Timp de un deceniu , numarul de lucrari rezultate din colaborari internationale a fost cu 20-30% mai mare in fizica decat in restul disciplinelor