
LA RECERCA A L'EPSEM: publicacions indexades al WoS 2011 - 2015

ESCOLA POLITÈCNICA SUPERIOR D'ENGINYERIA DE MANRESA
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UNIVERSITAT POLITÈCNICA DE CATALUNYA
BARCELONATECH
Biblioteca del Campus de Manresa



UNIVERSITAT POLITÈCNICA DE CATALUNYA
BARCELONATECH
Escola Politècnica Superior d'Enginyeria
de Manresa

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Introducció

La Biblioteca del Campus Universitari de Manresa presenta anualment, des de l'any 2010, l'**Observatori de la Recerca a la Catalunya Central**, un estudi bibliomètric que té per objectiu donar a conèixer la recerca que es duu a terme a la Catalunya Central i a quines institucions es desenvolupa. Pretén també ser un indicador de tendències que permeti fer un estudi de l'evolució de la recerca a institucions universitàries i de recerca

Aquest any presentem el **2n estudi sobre la recerca a l'EPSEM**, fet a partir de les dades extretes a la darrera edició de l'Observatori, que analitza el període de 5 anys 2011-2015.¹

L'abast de l'estudi i el procediment seguit es pot consultar al [portal de l'observatori](#), però en destaquem els aspectes importants a tenir en compte:

1. Tota la informació s'ha extret de la base de dades **Web of Science - Core Collection (WoS)**, que inclou els registres bibliogràfics del què es considera la producció tècnica i científica mundial de major rellevància. És la font d'informació més reconeguda internacionalment i especialment per l'Agència de Gestió d'Ajuts Universitaris i de Recerca (AGAUR) i la Comisión Nacional Evaluadora de la Actividad Investigadora (CNAI).
2. S'han recuperat exhaustivament les publicacions científiques disponibles a la base de dades WoS, publicades entre l'1 de gener 2011 i el 31 de desembre 2015, sense limitar per cap especialitat temàtica, només limitant geogràficament per la localització de l'adreça de la signatura dels autors.
3. Els resultats obtinguts de cada cerca s'han analitzat amb l'opció *Analyze results* que permet limitar-la per camps i ordenar els resultats per diferents criteris. De les dades obtingudes per cada ciutat, se n'han limitat el nombre de documents utilitzant el camp Organization i seleccionant, en cada cas, totes les diferents variables que apareixien.
4. Dins dels resultats de cada institució, s'han analitzat els resultats de nou amb l'opció *Analyze results* per poder treure les dades que es presenten en aquest informe.

Com remarquem en l'Observatori, la manca d'algun document científic en aquest informe pot ser deguda a diferents factors:

- La no incorporació a la base de dades WoS de la publicació, o bé, de la publicació en què és citat (el *citation report* només contempla citacions provinents de documents incorporats a WoS)
- La no inclusió de la menció de la ciutat a la signatura dels autors
- Errades en la indexació a la base de dades

Totes les dades obtingudes s'han treballat amb un full de càlcul, i aquí en presentem el resultat analitzat. També es pot consultar la [infografia](#) realitzada.

Per poder veure més exhaustivament la producció científica dels investigadors de l'EPSEM es pot consultar [FUTUR](#), el portal de la producció científica de la UPC.

¹ Podeu consultar el primer estudi a: UPC. Biblioteca del Campus Universitari de Manresa.(2015). La recerca a l'EPSEM 2010-2014. Disponible a: <http://hdl.handle.net/2117/77924>

1. Dades analitzades

53 autors
166 documents

2. Autors

Quadre amb els noms dels investigadors de l'EPSEM analitzats i el número de publicacions indexades durant el període analitzat (2011-2015).

AUTORS	ARTICLES
GAMISANS X	23
ROSSELL JM	20
ALFONSO P	19
DORADO AD	19
FREIXAS J	16
PALACIOS-QUINONERO F	16
BARCONS V	13
RUBIO-MASSEGU J	13
FONT J	12
BONET-DALMAU J	8
DEL AGUILA-LOPEZ F	8
MONCUNILL-GENIZ FX	8
PALA-SCHONWALDER P	8
VINTRO C	8
PUENTE MA	7
GIRALT-MAS R	6
FORTUNY-SANTOS J	5
GIMENEZ JM	5
LAO-LUQUE C	5
MOLINERO X	5
SANMIQUEL L	5
SOLE-SARDANS M	5
FREIJO M	4
GUIMERA X	4
PARCERISA D	4
DE LAS HERAS FXC	3
ESCOBET A	3
OLIVA J	3
PONS M	3

BONSFILLS A	2
CONANGLA L	2
CUNILL J	2
ESCOBET T	2
FERRERES E	2
GORCHS R	2
GRAU D	2
LOPEZ-RIERA A	2
MATA-PERELLO JM	2
PENA-PITARCH E	2
AL OMAR A	1
ALCELAY I	1
ALSINA M	1
BIOSCA-MUNTS J	1
CALVO D	1
CORS JM	1
JORGE J	1
LLADO J	1
MOLINA-HERNANDEZ MA	1
RIVERA J	1
SANCHEZ CV	1
TORRAS N	1
VENTURA E	1
VICENTE-RODRIGO J	1

3. Evolució del número de documents publicats cada any

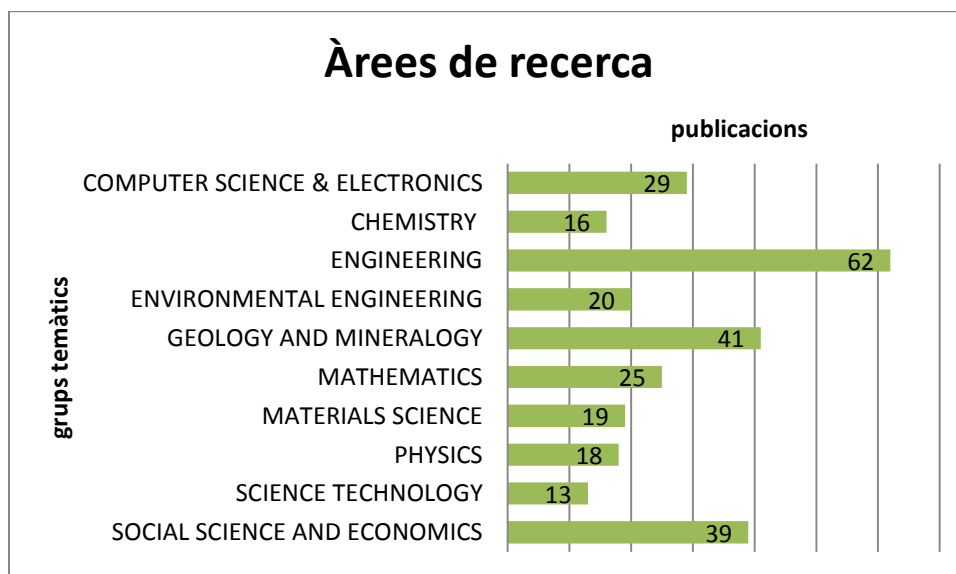
Total de publicacions indexades i analitzades des de l'any 2008. Dades extretes de les diferents edicions de l'[Observatori de la Recerca a la Catalunya Central](#)



4. Àrees de recerca

L'anàlisi per categories temàtiques que fa WoS l'hem simplificat agrupant les *research areas* en 11 grups temàtics que s'adiuen a les línies de recerca de l'EPSEM. Cal tenir present que WoS permet classificar cada publicació amb més d'una matèria, i que cada grup que hem creat engloba un número diferent de categories temàtiques, tal i com es pot veure a la següent taula:

GRUPS TEMÀTICS	DOCS	ÀREES TEMÀTIQUES DE WoS	DOCS
COMPUTER SCIENCE & ELECTRONICS	29	COMPUTER SCIENCE	16
		AUTOMATION CONTROL SYSTEMS	11
		ROBOTICS	1
		REMOTE SENSING	1
CHEMISTRY	16	CHEMISTRY	7
		BIOTECHNOLOGY APPLIED MICROBIOLOGY	7
		BIOCHEMISTRY MOLECULAR BIOLOGY	2
ENGINEERING	62	ENGINEERING	60
		INSTRUMENTS INSTRUMENTATION	1
		CONSTRUCTION BUILDING TECHNOLOGY	1
		ENVIRONMENTAL SCIENCES ECOLOGY	13
ENVIRONMENTAL ENGINEERING	20	WATER RESOURCES	6
		PLANT SCIENCES	1
		GEOLOGY	14
GEOLOGY AND MINERALOGY	41	MINERALOGY	13
		MINING MINERAL PROCESSING	8
		GEOCHEMISTRY GEOPHYSICS	3
		PALEONTOLOGY	1
		OCEANOGRAPHY	1
		ANTHROPOLOGY	1
MATHEMATICS	25	MATHEMATICS	18
		MATHEMATICAL METHODS IN SOCIAL SCIENCES	6
		MATHEMATICAL COMPUTATIONAL BIOLOGY	1
MATERIALS SCIENCE	19	MATERIALS SCIENCE	12
		METALLURGY METALLURGICAL ENGINEERING	5
		MECHANICS	2
PHYSICS	18	PHYSICS	14
		METEOROLOGY ATMOSPHERIC SCIENCES	4
SCIENCE TECHNOLOGY	13	SCIENCE TECHNOLOGY OTHER TOPICS	13
SOCIAL SCIENCE AND ECONOMICS	39	OPERATIONS RESEARCH MANAGEMENT SCIENCE	17
		BUSINESS ECONOMICS	15
		EDUCATION EDUCATIONAL RESEARCH	3
		SOCIAL SCIENCES OTHER TOPICS	2
		PUBLIC ENVIRONMENTAL OCCUPATIONAL HEALTH	2



5. Col·laboradors

Llista de les institucions que consten a les coautories dels investigadors de l'EPSEM de les publicacions analitzades. S'ha fet també una representació geogràfica d'aquestes institucions.

UNIVERSITAT COL·LABORADORA	REGISTRES
UAB	28
CSIC	19
UB	15
MASDAR INSTITUTE SCI TECH	14
UNIV OF AGDER	13
UNAM	10
FDN CTM	7
UNIV OF LEEDS	6
CNRS	4
MASSACHUSETTS INST OF TECH MIT	4
TEXAS TECH UNIVERSITY	4
UNIV BIRJAND	3
UPB	3
UNIV OF BAYREUTH	3
ASYLUM RES UK LTD	2
BIOMED RES NETWORKING CTR BIOENGN BIOMAT NANOME	2
COLEGIO GEOL BOLIVIA	2
INST UN DE LISBOA	2
NAT INST OF TELECOM POLAND	2
TAIYUAN UNIV OF TECH	2

TARBIAT MODARES UNIV	2
UNIV AGOSTINHO NETO	2
UNIV ORIENTE	2
UNIV TECN ORURO	2
UAM MEXICO	2
UNIV LAS PALMAS DE GRAN CANARIA	2
UdG	2
UNIV DE LES ILLES BALEARS	2
UNIV OF CERGY PONTOISE	2
UNIV OF COLORADO SYSTEM	2
UNIV OF SOUTHAMPTON	2
UNIV OF WISCONSIN SYSTEM	2
UNIV OF YAOUNDE I	2
AALTO UNIVERSITY	1
AARHUS UNIVERSITY	1
AGENCIA ESTATAL METEOROL	1
AUSTRIAN INST ECON RES WIFO	1
INSTITUT DE CIÈNCIES I TECNOLOGIA BARCELONA	1
BIOMAT NANOMED CIBER BBN	1
CALIFORNIA STATE UNIV	1
ICN2	1
CEA	1
CETAQUA	1
COMIBOL	1
AQUITAINE COMUE	1
CNR	1
COOPERAT MINERA NUEVA SAN JOSE	1
DUKE UNIVERSITY	1
ECOLE MINES NANTES	1
EINDHOVEN UNIV OF TECH	1
ENSAM	1
ENVIRONM CANADA	1
EUROPEAN CTR MEDIUM RANGE WEATHER FORECAST	1
EXXONMOBIL UPSTREAM RES CO	1
HARBIN INST OF TECH	1
IREC	1
JAPAN METEOROL AGCY	1
JOHNS HOPKINS UNIV	1
LANGLEY RESEARCH CENTER	1
MAX PLANCK SOC	1
MET OFFICE UK	1
NANOMATERIALS NANOTECHNOLOGY RESEARCH CENTER CINN	1
NATIONAL AERONAUTICS SPACE ADMINISTRATION NASA	1
NATIONAL CENTER ATMOSPHERIC RESEARCH NCAR USA	1

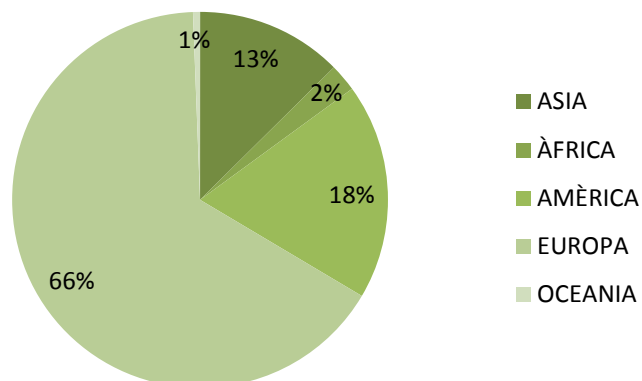
NATIONAL OCEANIC ATMOSPHERIC ADMIN NOAA USA	1
NATIONAL UNIVERSITY OF CORDOBA	1
NO MICHIGAN UNIV	1
ROYAL NETHERLANDS METEOROL INST	1
SAN JOSE STATE UNIVERSITY	1
SCI SYST APPLICAT INC	1
SCOTTISH UNIVERSITIES RESEARCH REACTOR CENTER	1
SERV GEOL MEXICANO	1
STOCKHOLM UNIVERSITY	1
SWISS FEDERAL INSTITUTE OF TECHNOLOGY ZURICH	1
TECNOLOGICO DE ESTUDIOS SUPERIORES DE ECATEPEC	1
UKRAINE DONETSK NAEL UNIV	1
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY	1
UNIV INT CATALUNYA	1
UNIV NAEL AUTONOMA MEXICO	1
UNIV NAEL RIO CUARTO	1
UNIVERSIDAD AUTONOMA DE NUEVO LEON	1
UNIVERSIDAD DE CADIZ	1
UNIVERSIDAD DE JAEN	1
UNIVERSIDAD DE SONORA	1
UNIVERSIDAD DE VALLADOLID	1
UNIVERSIDADE FEDERAL DO RIO GRANDE DO SUL	1
UNIVERSITE DE BORDEAUX	1
UNIVERSITE DE RECHERCHE PARIS SCIENCES ET LETTRES COMUE	1
UNIVERSITY OF ABERDEEN	1
UNIVERSITY OF DUISBURG ESSEN	1
UNIVERSITY OF PARIS NORD PARIS XIII	1
UNIVERSITY OF SAN DIEGO	1
UNIVERSITY OF SANTIAGO DE COMPOSTELA	1
UNIVERSITY OF TASMANIA	1
UNIVERSITY OF THE REPUBLIC URUGUAY	1
WAGENINGEN UNIVERSITY RESEARCH CENTER	1
WEATHERTECH SCANDINAVIA	1
YORK UNIVERSITY CANADA	1

Llista de les col·laboracions per països:

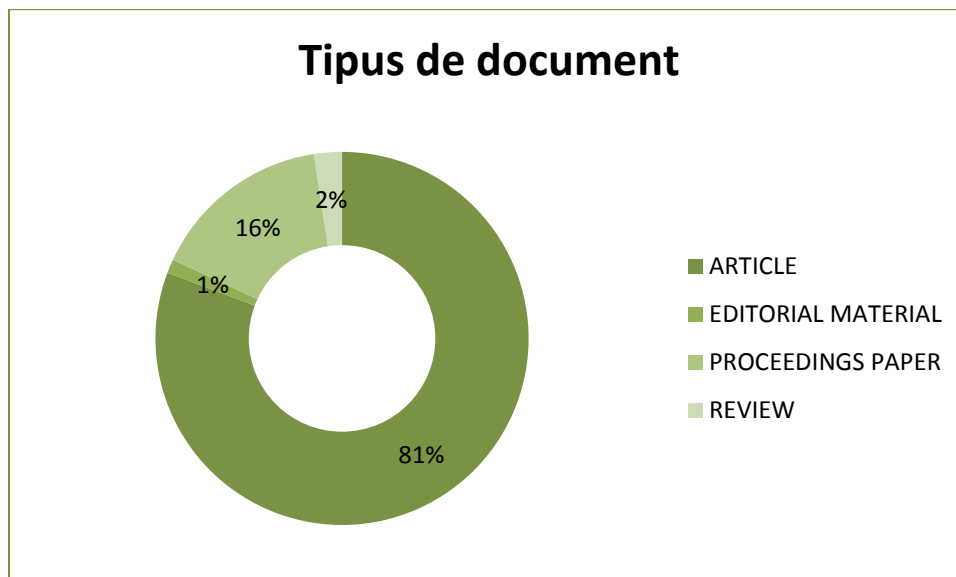
PAÏSOS/TERRITORIS	REGISTRES	CONTINENT	REGISTRES
U ARAB EMIRATES	14	ASIA	21
PEOPLES R CHINA	3		
IRAN	3		
JAPAN	1		
CAMEROON	2	ÀFRICA	4

ANGOLA	2		
MEXICO	11	AMÈRICA	31
USA	10		
BOLIVIA	4		
CUBA	2		
URUGUAY	1		
CANADA	1		
BRAZIL	1		
ARGENTINA	1		
SPAIN	59	EUROPA	110
NORWAY	13		
FRANCE	9		
ENGLAND	9		
GERMANY	5		
SCOTLAND	2		
PORTUGAL	2		
POLAND	2		
NETHERLANDS	2		
UKRAINE	1		
SWITZERLAND	1		
SWEDEN	1		
ITALY	1		
FINLAND	1		
DENMARK	1		
AUSTRIA	1		
AUSTRALIA	1	OCEANIA	1

Col·laboradors per continents



6. Tipus de document



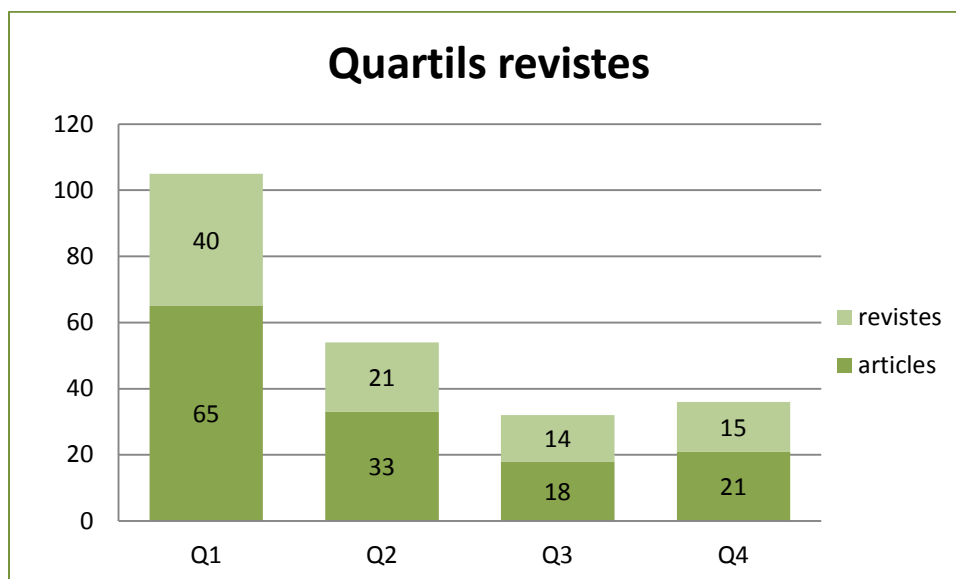
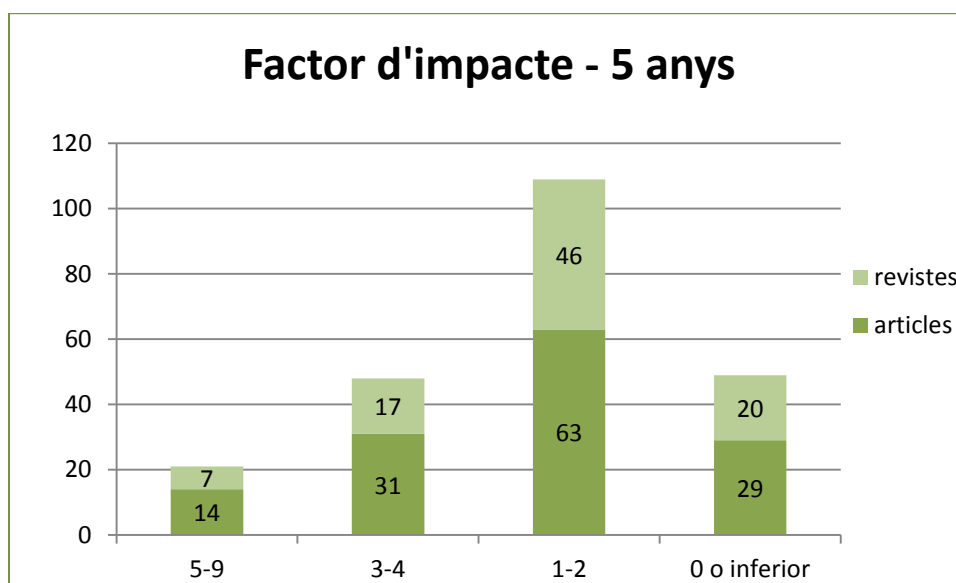
7. Categorització i impacte de les revistes

Segons els resultats obtinguts a partir del Journal Citation Report (JCR), les revistes en que els investigadors de l'EPSEM han publicat durant aquests 5 anys han estat:

REVISTA	ARTICLES	QUARTIL 2015	FI 2015	FI 5 ANYS
ABSTRACT AND APPLIED ANALYSIS	2	Q1	1.274	1.288
ACS APPLIED MATERIALS INTERFACES	1	Q1	7.145	7.732
ANNALS OF OPERATIONS RESEARCH	2	Q2	1.406	1.616
APPLIED ERGONOMICS	1	Q2	1.713	2.107
APPLIED MATHEMATICS AND COMPUTATION	1	Q1	1.345	1.436
APPLIED MICROBIOLOGY AND BIOTECHNOLOGY	4	Q2	3.376	3.882
APPLIED PHYSICS LETTERS	2	Q1	3.142	3.293
ARCHIVES OF MINING SCIENCES	2	Q4	0.448	0.519
BEILSTEIN JOURNAL OF NANOTECHNOLOGY	1	Q2	2.778	2.977
BIOCHEMICAL ENGINEERING JOURNAL	1	Q2	2.463	2.859
BOLETIN DE LA SOCIEDAD ESPANOLA DE CERAMICA Y VIDRIO	1	Q4	0.280	0.329
BOUNDARY LAYER METEOROLOGY	2	Q2	2.455	2.639
BULLETIN OF VOLCANOLOGY	1	Q1	2.513	2.853
CANADIAN MINERALOGIST	1	Q3	0.862	1.177

CENTRAL EUROPEAN JOURNAL OF OPERATIONS RESEARCH	1	Q3	0.978	1.005
CHEMICAL ENGINEERING JOURNAL	5	Q1	5.310	5.439
CHEMICAL ENGINEERING TECHNOLOGY	1	Q2	2.385	1.998
CHEMOSPHERE	2	Q1	3.698	4.068
CHUNGARA REVISTA DE ANTROPOLOGIA CHILENA	1	Q3	0.701	0.895
CLEAN TECHNOLOGIES AND ENVIRONMENTAL POLICY	1	Q2	1.934	2.052
COMMUNICATIONS IN NONLINEAR SCIENCE AND NUMERICAL SIMULATION	1	Q1	2.834	2.706
COMPUTER APPLICATIONS IN ENGINEERING EDUCATION	1	Q4	0.935	0.985
COMPUTERS INDUSTRIAL ENGINEERING	1	Q1	2.086	2.517
DECISION SUPPORT SYSTEMS	2	Q1	2.604	3.271
DISCRETE APPLIED MATHEMATICS	1	Q3	0.722	0.802
DYNA	2	Q4	0.302	0.234
DYNAMICS OF ATMOSPHERES AND OCEANS	1	Q3	1.439	1.736
EARTHQUAKE ENGINEERING STRUCTURAL DYNAMICS	1	Q1	2.127	2.525
ELECTRIC POWER SYSTEMS RESEARCH	2	Q2	1.809	2.066
ENGINEERING APPLICATIONS OF ARTIFICIAL INTELLIGENCE	1	Q1	2.368	2.604
EPL	1	Q1	1.963	1.931
EUROPEAN JOURNAL OF OPERATIONAL RESEARCH	6	Q1	2.679	3.109
GEODIVERSITAS	1	Q3	0.844	1.286
GEOLOGICA ACTA	1	Q3	1.056	1.476
GROUP DECISION AND NEGOTIATION	2	Q2	1.312	1.394
IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS I REGULAR PAPERS	3	Q1	2.393	2.550
IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS II EXPRESS BRIEFS	2	Q1	1.136	1.424
IET CONTROL THEORY AND APPLICATIONS	1	Q2	1.957	2.338
INDUSTRIAL CROPS AND PRODUCTS	1	Q1	3.449	3.554
INDUSTRIAL MANAGEMENT DATA SYSTEMS	2	Q2	1.278	1.688
INTERNATIONAL JOURNAL FOR NUMERICAL METHODS IN BIOMEDICAL ENGINEERING	1	Q2	1.849	1.509
INTERNATIONAL JOURNAL OF GAME THEORY	1	Q4	0.577	0.713
INTERNATIONAL JOURNAL OF MATERIALS RESEARCH	1	Q3	0.687	0.649
INTERNATIONAL JOURNAL OF OCCUPATIONAL SAFETY AND ERGONOMICS	1	Q4	0.381	0.711
JOURNAL OF APPLIED PHYSICS	3	Q2	2.101	2.126
JOURNAL OF CHEMICAL TECHNOLOGY AND BIOTECHNOLOGY	1	Q2	2.738	2.744
JOURNAL OF CLEANER PRODUCTION	1	Q1	4.959	5.315
JOURNAL OF ENVIRONMENTAL SCIENCE AND HEALTH PART A TOXIC HAZARDOUS SUBSTANCES ENVIRONMENTAL ENGINEERING	1	Q3	1.276	1.305
JOURNAL OF GEOPHYSICAL RESEARCH ATMOSPHERES	1	Q1	3.318	3.651
JOURNAL OF HAZARDOUS MATERIALS	3	Q1	4.836	5.641
JOURNAL OF INTELLIGENT FUZZY SYSTEMS	1	Q3	1.004	1.019
JOURNAL OF MATHEMATICAL ECONOMICS	1	Q4	0.434	0.494
JOURNAL OF MINING SCIENCE	1	Q4	0.350	0.401
JOURNAL OF PHYSICAL CHEMISTRY C	2	Q1	4.509	4.919
JOURNAL OF PHYSICAL CHEMISTRY LETTERS	1	Q1	8.539	7.803
JOURNAL OF SOUTH AMERICAN EARTH SCIENCES	1	Q2	1.737	2.041
JOURNAL OF THE FRANKLIN INSTITUTE ENGINEERING AND APPLIED	3	Q1	2.327	2.390

MATHEMATICS				
JOURNAL OF THE OPERATIONAL RESEARCH SOCIETY	1	Q2	1.225	1.386
JOURNAL OF THE SOCIETY OF LEATHER TECHNOLOGISTS AND CHEMISTS	1	Q4	0.351	0.298
LITHOS	1	Q1	3.723	4.638
MARINE AND PETROLEUM GEOLOGY	2	Q1	2.728	2.893
MATHEMATICAL METHODS OF OPERATIONS RESEARCH	1	Q4	0.526	0.778
MATHEMATICAL PROBLEMS IN ENGINEERING	4	Q3	0.644	0.697
MATHEMATICAL SOCIAL SCIENCES	3	Q4	0.344	0.455
MECCANICA	1	Q2	1.828	1.727
MECHATRONICS	1	Q1	1.871	2.076
MICROCHIMICA ACTA	1	Q1	4.831	3.798
MINERALIUM DEPOSITA	1	Q1	3.467	3.508
MINERALS ENGINEERING	1	Q1	1.813	2.166
MODELING IDENTIFICATION AND CONTROL	3	Q4	0.250	0.754
NANOSCALE	2	Q1	7.760	7.915
NANOTECHNOLOGY	1	Q1	3.573	3.611
NEW JOURNAL OF PHYSICS	2	Q1	3.570	3.501
ORE GEOLOGY REVIEWS	2	Q1	3.819	4.484
PHYTOCHEMISTRY LETTERS	1	Q2	1.253	1.451
PLOS ONE	1	Q1	3.057	3.535
PROCESS BIOCHEMISTRY	1	Q2	2.529	3.067
PROCESS SAFETY AND ENVIRONMENTAL PROTECTION	3	Q2	2.078	2.594
RAIRO OPERATIONS RESEARCH	1	Q4	0.358	0.444
RANDOM STRUCTURES ALGORITHMS	1	Q1	1.011	1.086
RESOURCES POLICY	1	Q1	2.489	2.736
SAFETY SCIENCE	1	Q1	2.157	2.284
SOCIAL CHOICE AND WELFARE	1	Q3	0.593	0.659
TECNOLOGIA Y CIENCIAS DEL AGUA	1	Q4	0.043	0.064
TOP	2	Q3	0.927	1.092
TUNNELLING AND UNDERGROUND SPACE TECHNOLOGY	1	Q1	1.741	2.005
WASTE MANAGEMENT	1	Q1	3.829	4.297
WATER RESEARCH	1	Q1	5.991	6.769
WATER SCIENCE AND TECHNOLOGY	1	Q3	1.064	1.195
WORK A JOURNAL OF PREVENTION ASSESSMENT REHABILITATION	1	Q4	0.715	0.537

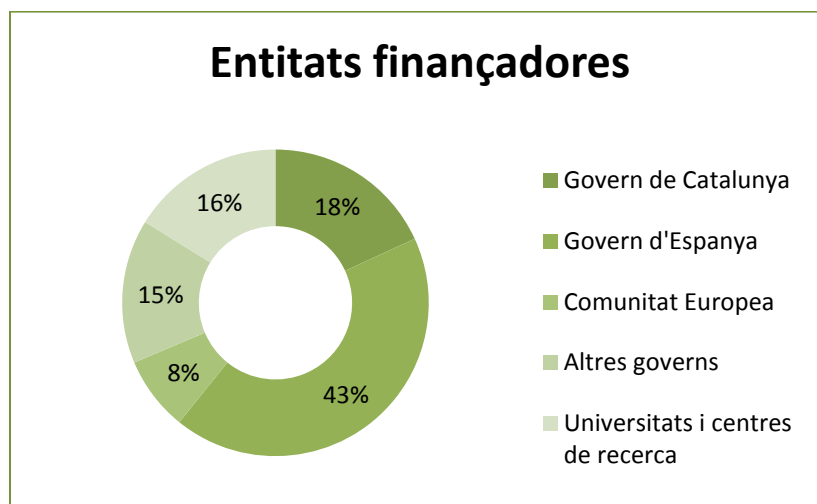


8. Entitats finançadores

La majoria de publicacions son resultat de projectes de recerca finançats per una o varies institucions. A continuació es mostres les entitats que han finançat alguns dels projectes als que pertanyen les publicacions analitzades:

TIPUS D'AGÈNCIA	DOCS
Govern de Catalunya	37
Govern d'Espanya	84
Comunitat europea	16
Universitats / Centres de recerca	33

Altres Governes i institucions	31	
		RESEARCH COUNCIL OF NORWAY RCN 12
		CENTRE FOR INDUSTRIAL TECHNOLOGICAL DEVELOPMENT CDTI 1
		POLISH NATIONAL BUDGET FUNDS 1
		XUNTA DE GALICIA 1
		NORWAY THROUGH THE EEA FINANCIAL MECHANISM 1
		NATIONAL SCIENCE FOUNDATION 1
		NATIONAL COUNCIL OF SCIENCE AND TECHNOLOGY OF MEXICO CONACYT 1
		MALAYSIAN GOVERNMENT UNDER PROGRAM SKIM LATIHAN AKADEMIK BUMIPUTRA SLAB 1
		ICELAND LIECHTENSTEIN AND NORWAY THROUGH THE EEA FINANCIAL MECHANISM 1
		HUGH E MCKINSTRY FUND 1
		CONICYT NATIONAL COMMISSION FOR SCIENTIFIC AND TECHNOLOGICAL RESEARCH OF CHILE 2
		CNPQ THE BRAZILIAN NATIONAL COUNCIL FOR SCIENTIFIC AND TECHNOLOGICAL DEVELOPMENT 1
		CAPEX THE BRAZILIAN GOVERNMENT AGENCY FOR THE DEVELOPMENT OF HUMAN RESOURCES 1
		BBSRC 1
		AUSTRALIAN RESEARCH COUNCIL 1
		AT T CHANCELLOR S FELLOWSHIP 1
		ASYLUM RESEARCH CORPORATION 1
		ANR 1
		AGENCIA DE PROMOCION CIENTIFICA Y TECNICA ANPCYT 1



9. Documents

A continuació es detallen totes les publicacions analitzades. Per facilitar-ne més informació s'han enllaçat al portal [Futur](#).

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