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http://www.isc.ac.uk/event_bibliography/index.php

http://colossus.iris.washington.edu/event_bibliography/index.php

1) Motivation

Seismologists often need to identify scientific articles related to specific seismic events that occurred at particular times or in specific regions. Most advanced bibliographical searches such as Google Scholar would require them to type a text string containing a commonly used name for the earthquake or the region and date it occurred. The search may need to be repeated several times to account for all possible transliterations of a place name in English, several different ways of specifying a date and a variety of names of the area where the earthquake has occurred.

Great East Japan earthquake 2011?

Tohoku tsunami?

Higashiihon daishinsai?



Tohoku earthquake?

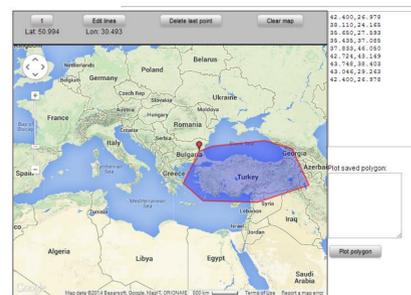
Sendai earthquake?

Fukushima?

The results then have to be merged and the unavoidable duplicates removed.

2) Searching the Event Bibliography

The ISC Event Bibliography database allows searching for publications linked to seismic events in the ISC Bulletin using event parameters (e.g., location and time of the event) and/or publications parameters (e.g., author name, journal, year of publication). The spatial search is global by default or polygons can be drawn on a Google map. The temporal search can be expanded to 100+ years. Additionally, users can search also for publications in a specific journal and/or author(s) and year of publication.



Approximately 500 titles are included in the ISC Event Bibliography, and about 300 of them are currently checked in routine operations.



Publication options:

Journal:

Author Surname:

Sort by: Event origin time, Year of publication, Journal

Publication date: -

An excerpt of output of the Event Bibliography search for the 1999 Izmit and Düzce earthquakes are shown. The ISC event identifier provides a link to the ISC Bulletin data for the event (which include location parameters, magnitudes, moment tensor solutions, station data, felt report), whereas the DOI connects to the journal page of the paper. The event header line also shows the total number of publications linked to the event (Article_total) and the upper case Event code (if available) chosen from the most recurrent name in the literature.

ISC Event Agency	Origin time	Lat	Lon	Depth	Magnitude	Article_total	Event code
1858313	1999-08-17 00:01:30	40.76	29.95	17	7.4	12211999	

Bilal, M. and Askan, A., 2014. Relationships between Fall Intensity and Recorded Ground-Motion Parameters for Turkey. *Bull. seism. Soc. Am.*, 104, 1, 484-496. DOI: [10.1785/BSSA-12013-0203](https://doi.org/10.1785/BSSA-12013-0203)

Wu, C., Meng, X., Peng, Z. and Ben-Zion, Y., 2014. Lack of Spatiotemporal Localization of Foreshocks before the 1999 Mw 7.1 Düzce, Turkey, Earthquake. *Bull. seism. Soc. Am.*, 104, 1, 569-576. DOI: [10.1785/BSSA-12013-0116](https://doi.org/10.1785/BSSA-12013-0116)

Lu, Y. and Panagiotou, M., 2014. Characterization and Representation of Near-Fault Ground Motions Using Cumulative Pulse Extraction with Wavelet Analysis. *Bull. seism. Soc. Am.*, 104, 1, 410-426. DOI: [10.1785/BSSA-12013-0102](https://doi.org/10.1785/BSSA-12013-0102)

Lu, Y., Zhang, H. and Peng, Z., 2014. Structure-controlled seismic anisotropy along the Karadere-Düzce branch of the North Anatolian Fault revealed by shear-wave splitting tomography. *Earth planet. Sci. Lett.*, 391, 319-326. DOI: [10.1016/j.epsl.2013.11.043](https://doi.org/10.1016/j.epsl.2013.11.043)

Stierle, E., Bohnhoff, M. and Várdu, V., 2014. Resolution of non-double-couple components in the seismic moment tensor using regional networks—II: application to aftershocks of the 1999 Mw 7.4 Izmit earthquake. *Geophys. J. Int.*, 196, 3, 1878-1888. DOI: [10.1093/gjg/ggu003](https://doi.org/10.1093/gjg/ggu003)

Dolan, J.F. and Haralab, B.D., 2014. How well do surface slip measurements track slip at depth in large strike-slip earthquakes? The importance of fault structural maturity in controlling on-fault slip versus off-fault surface deformation. *Earth planet. Sci. Lett.*, 388, 38-47. DOI: [10.1016/j.epsl.2013.11.043](https://doi.org/10.1016/j.epsl.2013.11.043)

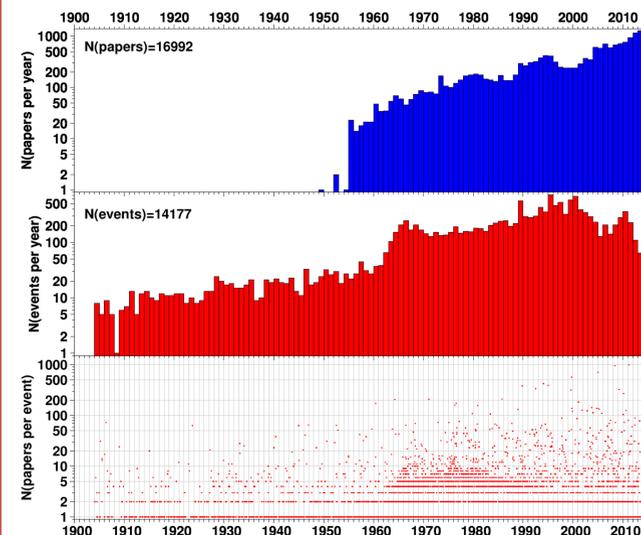
Iscrath, M., Bohnhoff, M., Bull, F. and Christen, G., 2014. Stress rotation and recovery in conjunction with the 1999 Izmit Mw 7.4 earthquake. *Geophys. J. Int.*, 196, 2, 951-956. DOI: [10.1093/gjg/ggu009](https://doi.org/10.1093/gjg/ggu009)

Examples from the Izmit and Düzce 1999 earthquakes

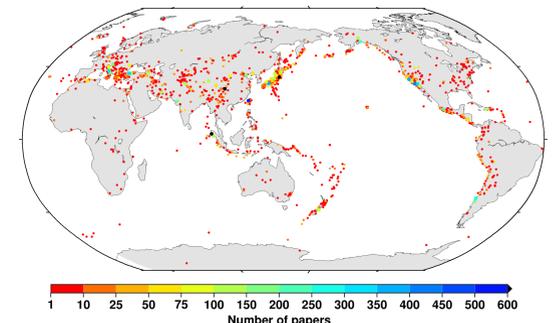


3) Composition of the Event Bibliography

The database is a continuation and extension of the Bibliography of Seismology, which was produced at the ISC between 1965 and 1995 (although ceased in 1995, is still available at www.isc.ac.uk/projects/bibliography/). Exploiting the references collected by the ISC since the 1970s, in year 2000 the ISC linked about 4,000 publications in the period 1971-1995 with the ISC event identifier. In order to resume and improve this service, in 2012 we started to link ISC event identifiers to publications that deal with specific seismic events and published in the period 1996 to present. The bibliographic record benefitted also from the ISC-GEM work where many references were added for earthquakes in the first half of last century. About 50 years of publications considering earthquakes or man-made events are available in the Event Bibliography database.



The Event Bibliography database contains ~17,000 references from about 500 titles. In general, most of the events have only a few links to publications, but a few have a considerable amount of articles associated (see plot below). Although the older publications in the database cover the 1950s, some events were also studied several decades after the event occurrence, so that significant earthquakes at the beginning of 20th century are also present (e.g., 1906 San Francisco earthquake).



The spatial distribution of the seismic events coded by number of publications, as well as the top 50 events with most publications associated. Not surprisingly, the events with most publications occurred in Japan, California and the Euro-Mediterranean region. The event name we adopted is considered the most popular for a given event, although different names may be found in the literature. Below the global map the first 50 events with more references associated are listed.

"The most studied events"

Event origin time	N	Code	Event origin time	N	Code
2011-03-11 05:46:23	991	TOHOKU2011	2011-11-14 09:26:10	127	KUNLUN2001
2008-05-12 06:27:59	759	WENCHUAN2008	2010-09-03 16:35:46	124	DARFIELD2010
2004-12-26 00:58:52	712	SUMATRA2004	2002-11-03 22:12:41	123	DENAL2002
1999-09-20 17:47:16	571	CHI-CHI1999	1999-11-12 16:57:19	119	DUZCE1999
1994-01-17 12:05:54	423	NORTHBRIDGE1994	2003-12-26 01:56:53	114	BAM2003
1995-01-16 20:46:51	391	SHYOGOI1995	2005-10-08 03:50:35	110	KASHMIR2005
1989-10-18 00:04:14	381	LOMAPRIETA1989	1979-10-15 23:16:57	109	IMPERIAL1979
1992-06-28 11:57:35	358	LANDERS1992	1983-05-26 02:59:58	107	SEAFJAPAN1983
2009-04-06 01:32:42	327	LAQUILA2009	2010-01-12 21:53:10	104	HAITI2010
1999-08-17 00:01:38	318	IZMIT1999	2012-05-20 02:03:53	89	EMILIA2012A
2010-02-27 06:34:13	271	MALLE2010	1997-09-28 09:40:25	88	UMBRIA-MARCHE1997B
1985-09-19 13:17:50	210	MEXICOCITY1985	2000-10-06 04:30:17	86	TOORU2000
1971-02-09 14:00:40	208	SANFERNANDO1971	2007-07-16 01:13:21	80	CHUETSU-OKI2007
1984-03-28 03:36:13	205	ALASKA1984	2011-02-21 23:51:42	80	CHRISTCHURCH2011A
2001-01-26 03:16:40	183	BHULU2001	2013-04-20 00:03:06	78	LUSHAN2013
1976-07-27 19:42:53	175	TANGSHAN1976	1977-03-04 19:21:54	76	ROMANIAN1977
1960-05-22 19:11:14	171	CHILE1960	2010-04-13 23:49:57	73	YUSHU2010
1976-05-06 20:00:12	160	FRIULI1976	2008-06-13 23:43:46	72	IWATE-MIYAGI2008
1980-11-23 18:34:52	157	CAMPANIA1980	1972-12-23 06:29:42	72	MANAGUA1972
2003-09-26 19:50:07	143	TOKACHI-OKI2003	1975-02-04 11:36:05	72	HAIHENING75
1999-10-16 09:46:45	139	HECTOR-MINE1999	1906-04-18 13:12:00	72	SANFRANCISCO1906
2004-09-28 17:15:24	139	PARKFIELD2004	1968-05-16 00:48:57	69	TOKACHI-OKI1968
2004-10-23 08:55:58	138	MID-NIGATA2004	1987-11-01 14:42:18	69	WHITTIER1987
2005-03-28 16:09:35	134	NIAS2005	2007-03-25 00:41:57	69	NOTO-HANTO2007
1988-12-07 07:41:24	131	ARMENIA1988	1980-10-10 12:25:22	68	ELASNA1980

4) Summary

The ISC Event Bibliography includes publications linked to events in the ISC Bulletin. Earthquakes that are part of a catalogue (like the GCMT, EHB, ISC-GEM, etc.) are not linked to the Event Bibliography, nor are the publications that deal with seismicity of specific regions or include large regional earthquake catalogues. We make no judgement of the quality of scientific articles. We continue to include further entries and invite our users to help us with necessary updates (see www.isc.ac.uk/event_bibliography/submit.php/). The database is updated on a monthly schedule as new publications become available. We follow several journals in order to encompass a wide range of disciplines related to geoscience and available at various databases. This feature makes the Event Bibliography an attractive tool for multidisciplinary studies and useful for researchers and students from different fields. We expect that this ISC product will also be helpful in facilitating the work of authors, reviewers and journal editors during the entire process of scientific article publication.