Ehsan Forootan

List of Publications by Year
in descending order

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71 papers	3,190 citations	101535 36 h-index	155644 55 g-index
89 all docs	89 docs citations	89 times ranked	2614 citing authors

#	Article	IF	Citations
1	Bayesian convolutional neural networks for predicting the terrestrial water storage anomalies during GRACE and GRACE-FO gap. Journal of Hydrology, 2022, 604, 127244.	5.4	39
2	Forecasting global and multi-level thermospheric neutral density and ionospheric electron content by tuning models against satellite-based accelerometer measurements. Scientific Reports, 2022, 12, 2095.	3.3	6
3	A sequential calibration approach based on the ensemble Kalman filter (C-EnKF) for forecasting total electron content (TEC). Journal of Geodesy, 2022, 96, .	3.6	5
4	A hierarchical Constrained Bayesian (ConBay) approach to jointly estimate water storage and Post-Glacial Rebound from GRACE(-FO) and GNSS data. All Earth, 2022, 34, 120-146.	2.1	2
5	Exploring groundwater and soil water storage changes across the CONUS at 12.5Âkm resolution by a Bayesian integration of GRACE data into W3RA. Science of the Total Environment, 2021, 758, 143579.	8.0	18
6	Analyzing GNSS Measurements to Detect and Predict Bridge Movements Using the Kalman Filter (KF) and Neural Network (NN) Techniques. Geomatics, 2021, 1, 65-80.	1.9	5
7	A functional modelling approach for reconstructing 3 and 4 dimensional wet refractivity fields in the lower atmosphere using GNSS measurements. Advances in Space Research, 2021, 68, 4024-4038.	2.6	8
8	A New 1â€Hourly ERA5â€Based Atmosphere Deâ€Aliasing Product for GRACE, GRACEâ€FO, and Future Gravity Missions. Journal of Geophysical Research: Solid Earth, 2021, 126, e2021JB021926.	3.4	5
9	A simultaneous calibration and data assimilation (C/DA) to improve NRLMSISE00 using thermospheric neutral density (TND) from space-borne accelerometer measurements. Geophysical Journal International, 2020, 224, 1096-1115.	2.4	8
10	A Least Squares Solution to Regionalize VTEC Estimates for Positioning Applications. Remote Sensing, 2020, 12, 3545.	4.0	2
11	An Iterative ICA-Based Reconstruction Method to Produce Consistent Time-Variable Total Water Storage Fields Using GRACE and Swarm Satellite Data. Remote Sensing, 2020, 12, 1639.	4.0	36
12	Comparison of Dataâ€Driven Techniques to Reconstruct (1992â€“2002) and Predict (2017â€“2018) GRACEâ€Like Gridded Total Water Storage Changes Using Climate Inputs. Water Resources Research, 2020, 56, e2019WR026551.	4.2	72
13	Comparing global hydrological models and combining them with GRACE by dynamic model data averaging (DMDA). Advances in Water Resources, 2020, 138, 103528.	3.8	16
14	Recovery of Rapid Water Mass Changes (RWMC) by Kalman Filtering of GRACE Observations. Remote Sensing, 2020, 12, 1299.	4.0	11
15	Assessing data assimilation frameworks for using multi-mission satellite products in a hydrological context. Science of the Total Environment, 2019, 647, 1031-1043.	8.0	27
16	Estimating and predicting corrections for empirical thermospheric models. Geophysical Journal International, 2019, 218, 479-493.	2.4	5
17	Understanding the global hydrological droughts of 2003â€“2016 and their relationships with teleconnections. Science of the Total Environment, 2019, 650, 2587-2604.	8.0	121
18	Determining water storage depletion within Iran by assimilating GRACE data into the W3RA hydrological model. Advances in Water Resources, 2018, 114, 1-18.	3.8	58

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19	A study of Bangladesh's sub-surface water storages using satellite products and data assimilation scheme. Science of the Total Environment, 2018, 625, 963-977.	8.0	41
20	Developing a Complex Independent Component Analysis (CICA) Technique to Extract Non-stationary Patterns from Geophysical Time Series. Surveys in Geophysics, 2018, 39, 435-465.	4.6	17
21	Comparing multi-objective optimization techniques to calibrate a conceptual hydrological model using in situ runoff and daily GRACE data. Computational Geosciences, 2018, 22, 789-814.	2.4	41
22	Understanding linkages between global climate indices and terrestrial water storage changes over Africa using GRACE products. Science of the Total Environment, 2018, 635, 1405-1416.	8.0	72
23	Reconstructing Regional Ionospheric Electron Density: A Combined Spherical Slepian Function and Empirical Orthogonal Function Approach. Surveys in Geophysics, 2018, 39, 289-309.	4.6	26
24	Improving drought simulations within the Murray-Darling Basin by combined calibration/assimilation of GRACE data into the WaterGAP Global Hydrology Model. Remote Sensing of Environment, 2018, 204, 212-228.	11.0	88
25	Efficient basin scale filtering of GRACE satellite products. Remote Sensing of Environment, 2018, 204, 76-93.	11.0	38
26	Nonparametric Data Assimilation Scheme for Land Hydrological Applications. Water Resources Research, 2018, 54, 4946-4964.	4.2	13
27	Understanding the association between climate variability and the Nile's water level fluctuations and water storage changes during 1992â€“2016. Science of the Total Environment, 2018, 645, 1509-1521.	8.0	34
28	Unsupervised ensemble Kalman filtering with an uncertain constraint for land hydrological data assimilation. Journal of Hydrology, 2018, 564, 175-190.	5.4	23
29	Comparison of accelerometer data calibration methods used in thermospheric neutral density estimation. Annales Geophysicae, 2018, 36, 761-779.	1.6	18
30	Evaluating non-tidal atmospheric products by measuring GRACE K-band range rate residuals. Geophysical Journal International, 2018, 215, 1132-1147.	2.4	4
31	Enhancing Civil Engineering Surveying Learning through Workshops. Journal of Surveying Engineering, - ASCE, 2017, 143, 05017001.	1.7	2
32	Ice mass change in Greenland and Antarctica between 1993 and 2013 from satellite gravity measurements. Journal of Geodesy, 2017, 91, 1283-1298.	3.6	29
33	Hydrogeological characterisation of groundwater over Brazil using remotely sensed and model products. Science of the Total Environment, 2017, 599-600, 372-386.	8.0	56
34	Large-Scale Total Water Storage and Water Flux Changes over the Arid and Semiarid Parts of the Middle East from GRACE and Reanalysis Products. Surveys in Geophysics, 2017, 38, 591-615.	4.6	45
35	A two-update ensemble Kalman filter for land hydrological data assimilation with an uncertain constraint. Journal of Hydrology, 2017, 555, 447-462.	5.4	41
36	Accounting for spatial correlation errors in the assimilation of GRACE into hydrological models through localization. Advances in Water Resources, 2017, 108, 99-112.	3.8	38

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37	Assessing sequential data assimilation techniques for integrating GRACE data into a hydrological model. Advances in Water Resources, 2017, 107, 301-316.	3.8	60
38	Changes and variability of precipitation and temperature in the Gangesâ€“Brahmaputraâ€“Meghna River Basin based on global highâ€resolution reanalyses. International Journal of Climatology, 2017, 37, 2141-2159.	3.5	23
39	Passiveâ€ocean radial basis function approach to improve temporal gravity recovery from GRACE observations. Journal of Geophysical Research: Solid Earth, 2017, 122, 6875-6892.	3.4	14
40	Interannual variability of temperature in the UTLS region over Gangesâ€“Brahmaputraâ€“Meghna river basin based on COSMIC GNSS RO data. Atmospheric Measurement Techniques, 2016, 9, 1685-1699.	3.1	5
41	An evaluation of highâ€resolution gridded precipitation products over Bhutan (1998â€“2012). International Journal of Climatology, 2016, 36, 1067-1087.	3.5	43
42	Does GRACE see the terrestrial water cycle â€œintensifyingâ€? Journal of Geophysical Research D: Atmospheres, 2016, 121, 733-745.	3.3	87
43	Modeling of present-day atmosphere and ocean non-tidal de-aliasing errors for future gravity mission simulations. Journal of Geodesy, 2016, 90, 423-436.	3.6	52
44	Exploring hydro-meteorological drought patterns over the Greater Horn of Africa (1979â€“2014) using remote sensing and reanalysis products. Advances in Water Resources, 2016, 94, 45-59.	3.8	72
45	Mapping probabilities of extreme continental water storage changes from space gravimetry. Geophysical Research Letters, 2016, 43, 8026-8034.	4.0	34
46	Exploring the influence of precipitation extremes and human water use on total water storage (TWS) changes in the <scp>G</scp>angesâ€<scp>B</scp>rahmaputraâ€<scp>M</scp>eghna River Basin. Water Resources Research, 2016, 52, 2240-2258.	4.2	67
47	Quantifying the impacts of ENSO and IOD on rain gauge and remotely sensed precipitation products over Australia. Remote Sensing of Environment, 2016, 172, 50-66.	11.0	60
48	Uncertainties in remotely sensed precipitation data over Africa. International Journal of Climatology, 2016, 36, 303-323.	3.5	136
49	Over Exploitation of Groundwater in the Centre of Amman Zarqa Basinâ€”Jordan: Evaluation of Well Data and GRACE Satellite Observations. Resources, 2015, 4, 819-830.	3.5	24
50	The updated ESA Earth System Model for future gravity mission simulation studies. Journal of Geodesy, 2015, 89, 505-513.	3.6	70
51	Waveform Retracking for Improving Level Estimations From TOPEX/Poseidon, Jason-1, and Jason-2 Altimetry Observations Over African Lakes. IEEE Transactions on Geoscience and Remote Sensing, 2015, 53, 2211-2224.	6.3	23
52	Improved gravity anomaly fields from retracked multimission satellite radar altimetry observations over the Persian Gulf and the Caspian Sea. Geophysical Journal International, 2015, 202, 1522-1534.	2.4	15
53	Multiâ€model and multiâ€sensor estimations of evapotranspiration over the Volta Basin, West Africa. International Journal of Climatology, 2015, 35, 3132-3145.	3.5	45
54	Separation of large scale water storage patterns over Iran using GRACE, altimetry and hydrological data. Remote Sensing of Environment, 2014, 140, 580-595.	11.0	150

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55	Comparisons of atmospheric mass variations derived from ECMWF reanalysis and operational fields, over 2003â€“2011. Journal of Geodesy, 2014, 88, 503-514.	3.6	42
56	Satellite radar altimetry waveform retracking over the Caspian Sea. International Journal of Remote Sensing, 2014, 35, 6329-6356.	2.9	23
57	Characterization of Ethiopian mega hydrogeological regimes using GRACE, TRMM and GLDAS datasets. Advances in Water Resources, 2014, 74, 64-78.	3.8	76
58	Water storage changes and climate variability within the Nile Basin between 2002 and 2011. Advances in Water Resources, 2014, 73, 1-15.	3.8	92
59	Improving the recovery of monthly regional water storage using one year simulated observations of two pairs of GRACE-type satellite gravimetry constellation. Journal of Applied Geophysics, 2014, 109, 195-209.	2.1	8
60	Multivariate Prediction of Total Water Storage Changes Over West Africa from Multi-Satellite Data. Surveys in Geophysics, 2014, 35, 913-940.	4.6	72
61	Changes in temperature and precipitation extremes over the Greater Horn of Africa region from 1961 to 2010. International Journal of Climatology, 2014, 34, 1262-1277.	3.5	186
62	Understanding the decline of water storage across the Ramser-Lake Naivasha using satellite-based methods. Advances in Water Resources, 2013, 60, 7-23.	3.8	57
63	Potential impacts of climate and environmental change on the stored water of Lake Victoria Basin and economic implications. Water Resources Research, 2013, 49, 8160-8173.	4.2	72
64	Separation of deterministic signals using independent component analysis (ICA). Studia Geophysica Et Geodaetica, 2013, 57, 17-26.	0.5	44
65	The influence of low frequency sea surface temperature modes on delineated decadal rainfall zones in Eastern Africa region. Advances in Water Resources, 2013, 54, 161-180.	3.8	35
66	A point-wise least squares spectral analysis (LSSA) of the Caspian Sea level fluctuations, using TOPEX/Poseidon and Jason-1 observations. Advances in Space Research, 2013, 51, 858-873.	2.6	23
67	Comparisons of atmospheric data and reduction methods for the analysis of satellite gravimetry observations. Journal of Geophysical Research: Solid Earth, 2013, 118, 2382-2396.	3.4	25
68	Independent patterns of water mass anomalies over Australia from satellite data and models. Remote Sensing of Environment, 2012, 124, 427-443.	11.0	79
69	Decadal rainfall variability modes in observed rainfall records over East Africa and their relations to historical sea surface temperature changes. Journal of Hydrology, 2012, 464-465, 140-156.	5.4	50
70	Separation of global time-variable gravity signals into maximally independent components. Journal of Geodesy, 2012, 86, 477-497.	3.6	89
71	Revealing the physics of movement: Comparing the similarity of movement characteristics of different types of moving objects. Computers, Environment and Urban Systems, 2009, 33, 419-434.	7.1	153