Top Articles of JHD in 2019 (data from Springer-Nature)

1.Top 10 Full-Text Article Requests 2019 (all publication years)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Title** | **Author** | **Article Type** | **Volume** | **Issue** | **Year\*** | **Article Requests 2019** |
| Spectral/hp element methods: Recent developments, applications, and perspectives | Hui Xu et al. | Review Paper | 30 | 1 | 2018 | 1,662 |
| Third generation of vortex identification methods: Omega and Liutex/Rortex based systems | Chaoqun Liu et al. | Original Paper | 31 | 2 | 2019 | 487 |
| Application of deep learning method to Reynolds stress models of channel flow based on reduced-order modeling of DNS data | Zhen Zhang et al. | Original Paper | 31 | 1 | 2019 | 278 |
| Bubble dynamics and its applications | Shi-Ping Wang et al. | Review Paper | 30 | 6 | 2018 | 220 |
| A review of cavitation in hydraulic machinery | Xian-wu Luo et al. | Review Paper | 28 | 3 | 2016 | 195 |
| Development of naoe-FOAM-SJTU solver based on OpenFOAM for marine hydrodynamics | Jian-hua Wang et al. | Original Paper | 31 | 1 | 2019 | 181 |
| A selected review of vortex identification methods with applications | Yu-ning Zhang et al. | Original Paper | 30 | 5 | 2018 | 149 |
| Smoothed particle hydrodynamics and its applications in fluid-structure interactions | A-man Zhang et al. | Review Paper | 29 | 2 | 2017 | 136 |
| The structure of turbulent flow through submerged flexible vegetation | Wen-xin Huai et al. | Original Paper | 31 | 2 | 2019 | 135 |
| SPH modeling of fluid-structure interaction | Luhui Han et al. | Original Paper | 30 | 1 | 2018 | 130 |

2.Top 10 Full-Text Article Requests 2019 (publication years 2017–2019)

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| --- | --- | --- | --- | --- | --- | --- |
| **Title** | **Author** | **Article Type** | **Volume** | **Issue** | **Year\*** | **Article Requests 2019** |
| Spectral/hp element methods: Recent developments, applications, and perspectives | Hui Xu et al. | Review Paper | 30 | 1 | 2018 | 1,662 |
| Third generation of vortex identification methods: Omega and Liutex/Rortex based systems | Chaoqun Liu et al. | Original Paper | 31 | 2 | 2019 | 487 |
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| Bubble dynamics and its applications | Shi-Ping Wang et al. | Review Paper | 30 | 6 | 2018 | 220 |
| Development of naoe-FOAM-SJTU solver based on OpenFOAM for marine hydrodynamics | Jian-hua Wang et al. | Original Paper | 31 | 1 | 2019 | 181 |
| A selected review of vortex identification methods with applications | Yu-ning Zhang et al. | Original Paper | 30 | 5 | 2018 | 149 |
| Smoothed particle hydrodynamics and its applications in fluid-structure interactions | A-man Zhang et al. | Review Paper | 29 | 2 | 2017 | 136 |
| The structure of turbulent flow through submerged flexible vegetation | Wen-xin Huai et al. | Original Paper | 31 | 2 | 2019 | 135 |
| Explicit formula for the Liutex vector and physical meaning of vorticity based on the Liutex-Shear decomposition | Yi-qian Wang et al. | Original Paper | 31 | 3 | 2019 | 130 |
| SPH modeling of fluid-structure interaction | Luhui Han et al. | Original Paper | 30 | 1 | 2018 | 130 |

3. Top ranking highest cited 2016-2017 articles for IF Year 2018

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Title** | **Author** | **Publication Type** | **Publication Date** | **DOI** | **Volume** | **Issue** | **Total Citations\*** | **Citations**  **for IF 2018** |
| A review of cavitation in hydraulic machinery | Luo, Xian-wu; Ji, Bin; Tsujimoto, Yoshinobu | Review | 01-06-2016 | 10.1016/S1001-6058(16)60638-8 | 28 | 3 | 95 | 25 |
| Smoothed particle hydrodynamics and its applications in fluid-structure interactions | Zhang, A-man; Sun, Peng-nan; Ming, Fu-ren; Colagrossi, A. | Review | 01-04-2017 | 10.1016/S1001-6058(16)60730-8 | 29 | 2 | 46 | 19 |
| Large eddy simulation of turbulent attached cavitating flow with special emphasis on large scale structures of the hydrofoil wake and turbulence-cavitation interactions | Ji, Bin; Long, Yun; Long, Xin-ping; Qian, Zhong-dong; Zhou, Jia-jian | Article | 01-02-2017 | 10.1016/S1001-6058(16)60715-1 | 29 | 1 | 40 | 19 |
| Verification and validation of URANS simulations of the turbulent cavitating flow around the hydrofoil | Long, Yun; Long, Xin-ping; Ji, Bin; Huai, Wen-xin; Qian, Zhong-dong | Article | 01-08-2017 | 10.1016/S1001-6058(16)60774-6 | 29 | 4 | 38 | 18 |
| On the modeling of viscous incompressible flows with smoothed particle hydrodynamics | Liu, Mou-Bin; Li, Shang-ming | Review | 01-10-2016 | 10.1016/S1001-6058(16)60676-5 | 28 | 5 | 40 | 16 |
| Mixed convection flow of jeffrey nanofluid with thermal radiation and double stratification | Abbasi, F. M.; Shehzad, S. A.; Hayat, T.; Alhuthali, M. S. | Article | 01-10-2016 | 10.1016/S1001-6058(16)60686-8 | 28 | 5 | 31 | 12 |
| Title | Author | Publication Type | Publication Date | DOI | Volume | Issue | Total Citations\* | Citations  for IF 2018 |
| Numerical simulation of hydraulic force on the impeller of reversible pump turbines in generating mode | Li, Jin-wei; Zhang, Yu-ning; Liu, Kai-hua; Xian, Hai-zhen; Yu, Ji-xing | Article | 01-08-2017 | 10.1016/S1001-6058(16)60773-4 | 29 | 4 | 13 | 8 |
| Hull form optimization of a cargo ship for reduced drag | Huang, Fuxin; Yang, Chi | Article | 01-04-2016 | 10.1016/S1001-6058(16)60619-4 | 28 | 2 | 21 | 7 |
| Numerical investigation of unsteady cavitating turbulent flows around twisted hydrofoil from the Lagrangian viewpoint | Cheng, Huai-yu; Long, Xin-ping; Ji, Bin; Zhu, Ye; Zhou, Jia-jian | Article | 01-08-2016 | 10.1016/S1001-6058(16)60674-1 | 28 | 4 | 19 | 6 |
| Hydrodynamic modelling of flow impact on structures under extreme flow conditions | Liang, Qiuhua; Chen, Kai-cui; Hou, Jingming; Xiong, Yan; Wang, Gang; Qiang, Juan | Article | 01-04-2016 | 10.1016/S1001-6058(16)60628-5 | 28 | 2 | 11 | 6 |

4. Altmetric Top 10 – 2019

**How is the Altmetric score calculated? The score is a weighted count**

The score is a weighted count of the different sources (newspaper stories, tweets, blog posts, comments) that mention the paper.

Why is it weighted? To reflect the relative importance of each type of source. It’s easy to imagine that the average newspaper story is more likely to bring attention to the paper than the average tweet. This is reflected in the default weightings.

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **News** | | **Blogs** | **Q&A forums** | | **Twitter** | **Google+** | **Facebook** | |
| 8 | | 5 | 2.5 | | 1 | 1 | 0.25 | |
| **Score** | **Article DOI** | | | **Title** | | | | **Author(s)** | | **Publication Date** |
| 8 | 10.1016/s1001-6058(09)60249-3 | | | Dynamic pressures on curved front seawall models under random waves | | | | K. V. ANAND, V. SUNDAR, S. A. SANNASIRAJ | | 01-10-2010 |
| 4 | 10.1016/s1001-6058(16)60614-5 | | | A new biomimicry marine current turbine: Study of hydrodynamic performance and wake using software OpenFOAM | | | | YUNG-JEH CHU | | 01-02-2016 |
| 3 | 10.1016/s1001-6058(13)60365-0 | | | Influence of emergent macrophyte (Phragmites australis) density on water turbulence and erosion of organic-rich sediment | | | | JUKKA HORPPILA, JONI KAITARANTA, LAURA JOENSUU, LEENA NURMINEN | | 01-04-2013 |
| 3 | 10.1016/s1001-6058(16)60791-6 | | | Numerical simulation of three-dimensional breaking waves and its interaction with a vertical circular cylinder | | | | ZHIHUA XIE, LIN LU, THORSTEN STOESSER, JIAN-GUO LIN, DIMITRIOS PAVLIDIS, PABLO SALINAS, CHRISTOPHER C. PAIN, OMAR K. MATAR | | 01-10-2017 |
| 2 | 10.1016/s1001-6058(16)60705-9 | | | Effects of thermal boundary conditions on the joule heating of electrolyte in a microchannel | | | | M. Y. ABDOLLAHZADEH JAMALABADI, J. H. PARK, M. M. RASHIDI, J. M. CHEN | | 01-10-2016 |
| 1 | 10.1016/s1001-6058(16)60699-6 | | | New prospects for computational hydraulics by leveraging high-performance heterogeneous computing techniques | | | | QIUHUA LIANG, LUKE SMITH, XILIN XIA | | 01-12-2016 |
| 1 | 10.1016/s1001-6058(16)60628-5 | | | Hydrodynamic modelling of flow impact on structures under extreme flow conditions | | | | QIUHUA LIANG, KAI-CUI CHEN, JINGMING HOU, YAN XIONG, GANG WANG, JUAN QIANG | | 01-04-2016 |