

Silvère Bonnabel

List of Publications by Year in descending order

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Version: 2024-02-01

32
papers

1,521
citations

759233

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1058476

14
g-index

32
all docs

32
docs citations

32
times ranked

884
citing authors

#	ARTICLE	IF	CITATIONS
1	The Invariant Extended Kalman Filter as a Stable Observer. IEEE Transactions on Automatic Control, 2017, 62, 1797-1812.	5.7	328
2	Stochastic Gradient Descent on Riemannian Manifolds. IEEE Transactions on Automatic Control, 2013, 58, 2217-2229.	5.7	235
3	AI-MU Dead-Reckoning. IEEE Transactions on Intelligent Vehicles, 2020, 5, 585-595.	12.7	143
4	Invariant Kalman Filtering. Annual Review of Control, Robotics, and Autonomous Systems, 2018, 1, 237-257.	11.8	124
5	Intrinsic Filtering on Lie Groups With Applications to Attitude Estimation. IEEE Transactions on Automatic Control, 2015, 60, 436-449.	5.7	97
6	Fixed-rank matrix factorizations and Riemannian low-rank optimization. Computational Statistics, 2014, 29, 591-621.	1.5	63
7	Unscented Kalman filtering on Lie groups. , 2017, , .		53
8	Learning Wheel Odometry and IMU Errors for Localization. , 2019, , .		50
9	Denoising IMU Gyroscopes with Deep Learning for Open-Loop Attitude Estimation. IEEE Robotics and Automation Letters, 2020, , 1-1.	5.1	48
10	Invariant Kalman Filtering for Visual Inertial SLAM. , 2018, , .		40
11	RINS-W: Robust Inertial Navigation System on Wheels. , 2019, , .		40
12	Exploiting Symmetries to Design EKFs With Consistency Properties for Navigation and SLAM. IEEE Sensors Journal, 2019, 19, 1572-1579.	4.7	37
13	A New Approach to 3D ICP Covariance Estimation. IEEE Robotics and Automation Letters, 2020, 5, 744-751.	5.1	34
14	Priority-based intersection management with kinodynamic constraints. , 2014, , .		27
15	A Mathematical Framework for IMU Error Propagation with Applications to Preintegration. , 2020, , .		26
16	Associating Uncertainty to Extended Poses for on Lie Group IMU Preintegration With Rotating Earth. IEEE Transactions on Robotics, 2022, 38, 998-1015.	10.3	25
17	Invariant smoothing on Lie Groups. , 2018, , .		21
18	Extended Kalman Filtering With Nonlinear Equality Constraints: A Geometric Approach. IEEE Transactions on Automatic Control, 2020, 65, 2325-2338.	5.7	18

#	ARTICLE	IF	CITATIONS
19	Linear observed systems on groups. <i>Systems and Control Letters</i> , 2019, 129, 36-42.	2.3	17
20	NNAKF: A Neural Network Adapted Kalman Filter for Target Tracking. , 2021, , .		14
21	An invariant Linear Quadratic Gaussian controller for a simplified car. , 2015, , .		12
22	Factor Graph-Based Smoothing Without Matrix Inversion for Highly Precise Localization. <i>IEEE Transactions on Control Systems Technology</i> , 2021, 29, 1219-1232.	5.2	11
23	Towards realistic covariance estimation of ICP-based Kinect V1 scan matching: The 1D case. , 2017, , .		10
24	Tracking the Frenet-Serret frame associated to a highly maneuvering target in 3D. , 2017, , .		9
25	An intrinsic Cram�r-Rao bound on $SO(3)$ for (dynamic) attitude filtering. , 2015, , .		8
26	A real-time unscented Kalman filter on manifolds for challenging AUV navigation. , 2020, , .		8
27	Stochastic observers on Lie groups: a tutorial. , 2018, , .		7
28	Invariant filtering for Pose EKF-SLAM aided by an IMU. , 2015, , .		6
29	Humanoid Robot Navigation: Getting Localization Information from Vision. <i>Journal of Intelligent Systems</i> , 2014, 23, 113-132.	1.6	4
30	An innovative nonlinear filter for radar kinematic estimation of maneuvering targets in 2D. , 2017, , .		3
31	Maneuver Detector for Active Tracking Update Rate Adaptation. , 2018, , .		3
32	Silvere Bonnabel [People in Control]. <i>IEEE Control Systems</i> , 2021, 41, 29-31.	0.8	0