

ARC faculty recent publications (2017 – 2022)

Faculty	Year	Publication
Uncrewed Aircraft Systems		
Gregory	2021	Effects of Fluidic Oscillator Nozzle Angle on the Flowfield and Impingement Heat Transfer, MA Hossain, A Ameri, JW Gregory, J Bons - AIAA Journal, 2021
Gregory	2021	Spanwise Wavelength of Streamwise Vortices in a Forced Turbulent Convex Wall Jet, A Pandey, JW Gregory - AIAA Journal, 2021
Gregory	2021	Experimental investigation of innovative cooling schemes on an additively manufactured engine scale turbine nozzle guide vane, MA Hossain, A Ameri, JW Gregory, JP Bons, Journal of Turbomachinery 143 (5)
Gregory	2021	Design and development of a high-speed UAS for beyond visual line-of-sight operations, MH McCrink, JW Gregory, Journal of Intelligent & Robotic Systems 101 (2), 1-16
Gregory	2021	Low-Altitude Radar Track Filtering and Classification Using Deep Learning, BL Emshoff, M McCrink, JW Gregory, AIAA Scitech 2021 Forum, 1411
Gregory	2020	Instabilities and turbulence in a forced turbulent convex wall jet, A Pandey, JW Gregory, Physics of Fluids 32 (9), 095111
Gregory	2020	The effect of spatially and temporally modulated plasma actuation on cylinder wake, S Bhattacharya, JW Gregory, AIAA Journal 58 (9), 3808-3818
Gregory	2020	The unsteady Kutta condition on an airfoil in a surging flow, W Zhu, MH McCrink, JP Bons, JW Gregory, Journal of Fluid Mechanics 893
Gregory	2020	Derived angle of attack and sideslip angle characterization for general aviation, J Valasek, J Harris, S Pruchnicki, M McCrink, J Gregory, DG Sizoo, Journal of Guidance, Control, and Dynamics 43 (6), 1039-1055
Gregory	2020	Revolutionizing Turbine Cooling with Micro-Architectures Enabled by Direct Metal Laser Sintering, J Bons, A Ameri, J Gregory, A Hossain, The Ohio State Univ., Columbus, OH (United States)
Gregory	2020	Experimental investigation of sweeping jet film cooling in a transonic turbine cascade, MA Hossain, ME Asar, JW Gregory, JP Bons, Journal of Turbomachinery 142 (4), 041009
Gregory	2020	Unsteady Freestream Velocity Oscillation System at Rotorcraft-Relevant Mach Amplitude, J Bons, JW Gregory, Ohio State University Columbus United States
Gregory	2020	Lagrangian Coherent Structures in Optimal Vortex Ring Formation, BN Harter, JW Gregory, AIAA Scitech 2020 Forum, 0141
Gregory	2020	Aerodynamic performance and trailing edge flow physics on an airfoil in an oscillating freestream, W Zhu, M McCrink, JP Bons, JW Gregory, AIAA Scitech 2020 Forum, 1758
Gregory	2019	Impact of rotor–airframe orientation on the aerodynamic and aeroacoustic characteristics of small unmanned aerial systems, Z Wang, Q Henricks, M Zhuang, A Pandey, M Sutkowy, B Harter, ..., Drones 3 (3), 56
Gregory	2019	Sweeping jet film cooling at high blowing ratio on a turbine vane, MA Hossain, A Ameri, JW Gregory, JP Bons, Turbo Expo: Power for Land, Sea, and Air 58653, V05BT19A021
Gregory	2019	Resolving vortex-induced pressure fluctuations on a cylinder in rotor wake using fast-responding pressure-sensitive paint, L Jiao, Y Chen, X Wen, D Peng, Y Liu, JW Gregory, Physics of Fluids 31 (5), 055106
Gregory	2019	Sweeping jet film cooling on a turbine vane, MA Hossain, L Agricola, A Ameri, JW Gregory, JP Bons, Journal of Turbomachinery 141 (3), 031007
Gregory	2019	Phase-synchronized fluidic oscillator pair, MN Tomac, JW Gregory, AIAA Journal 57 (2), 670-681
Gregory	2019	Identification of Lagrangian Coherent Structures using the Background-Oriented Schlieren Method, BN Harter, M McCrink, JW Gregory, AIAA Aviation 2019 Forum, 2810
Gregory	2019	Reynolds Scaling Effects on Dynamic Stall of VR-7 and VR-12 Airfoils, W Zhu, JP Bons, JW Gregory, AIAA Scitech 2019 Forum, 0304
Gregory	2019	Effects of Rotation on a Fluidic Actuator, MA Hossain, A Ameri, JW Gregory, JP Bons, AIAA Scitech 2019 Forum, 0885
Gregory	2019	Visual-Inertial Odometry for Unmanned Aerial Vehicle using Deep Learning, H Lee, M McCrink, JW Gregory, AIAA Scitech 2019 Forum, 1410
Gregory	2018	Secondary Instability of Streamwise Vortices in a Turbulent Convex Wall Jet, A Pandey, J Gregory, Bulletin of the American Physical Society 63
Gregory	2018	Visualization of Lagrangian Coherent Structures in Vortex Formation and Advection, B Harter, M McCrink, J Gregory, Bulletin of the American Physical Society 63
Gregory	2018	Unsteady Lift on a Fixed-AoA Airfoil in Unsteady Freestream, J Gregory, W Zhu, G Altamirano, J Plank, J Bons, Bulletin of the American Physical Society 63
Gregory	2018	Oscillation characteristics of mutually impinging dual jets in a mixing chamber, MN Tomac, JW Gregory, Physics of Fluids 30 (11), 117102
Gregory	2018	Sweeping jet impingement heat transfer on a simulated turbine vane leading edge, MA Hossain, A Ameri, JW Gregory, JP Bons, Journal of the Global Power and Propulsion Society 2, 402-414
Gregory	2018	Iterative blind deconvolution algorithm for deblurring a single PSP/TSP image of rotating surfaces, A Pandey, JW Gregory, Sensors 18 (9), 3075
Gregory	2018	Turbine Vane Leading Edge Impingement Cooling With a Sweeping Jet, L Agricola, MA Hossain, A Ameri, JW Gregory, JP Bons, Turbo Expo: Power for Land, Sea, and Air 51081, V05AT16A017

Gregory	2018	Experimental and numerical investigation of sweeping jet film cooling, MA Hossain, R Prenter, RK Lundgreen, A Ameri, JW Gregory, JP Bons, Journal of Turbomachinery 140 (3)
Gregory	2018	Optimum-wavelength forcing of a bluff body wake, S Bhattacharya, JW Gregory, Physics of Fluids 30 (1), 015101
Gregory	2018	Effects of Exit Fan Angle on the Heat Transfer Performance of Sweeping Jet Impingement, MA Hossain, L Agricola, A Ameri, JW Gregory, JP Bons, 2018 International Energy Conversion Engineering Conference, 4886
Gregory	2018	Unmanned Aerial System Framework for Human-Robot Interaction, H Lee, M McCrink, JW Gregory, 2018 Atmospheric Flight Mechanics Conference, 2984
Gregory	2018	Characterizing wave propagation in an unsteady transonic wind tunnel, W Zhu, B Harter, JW Gregory, JP Bons, 2018 Aerodynamic Measurement Technology and Ground Testing Conference, 3568
Gregory	2018	Experimental study of the interaction between rotor wake and a cylinder in Hover, LR Jiao, D Peng, X Wen, Y Liu, JW Gregory, 2018 Applied Aerodynamics Conference, 4214
Gregory	2018	Measurement of unsteady gusts in an urban wind field using a uav-based anemometer, RL Thorpe, M McCrink, JW Gregory, 2018 Applied Aerodynamics Conference, 4218
Gregory	2018	Design and development of a high-speed uas for beyond line-of-sight operation, M McCrink, JW Gregory, 2018 AIAA Information Systems-AIAA Infotech@ Aerospace, 0750
Gregory	2018	Aerodynamic Characterization of a Quad-Rotor Helicopter, A Pandey, ML Sutkowy, M McCrink, JW Gregory, 2018 AIAA Aerospace Sciences Meeting, 1526
Gregory	2018	A comprehensive approach to study aerodynamic and aeroacoustic performances of small multicopter unmanned aerial systems, Z Wang, A Pandey, M Sutkowy, B Harter, M McCrink, JW Gregory, ..., 2018 AIAA Aerospace Sciences Meeting, 0268
Gregory	2018	Effects of curvature on the performance of sweeping jet impingement heat transfer, MA Hossain, L Agricola, A Ameri, JW Gregory, JP Bons, 2018 AIAA Aerospace Sciences Meeting, 0243
Gregory	2018	Rotor Wake Structure Development in Low Reynolds Number Conditions, ML Sutkowy, A Pandey, M McCrink, JW Gregory, 2018 AIAA Aerospace Sciences Meeting, 1830
Gregory	2018	Blade tip pressure measurements using pressure-sensitive paint, OD Wong, AN Watkins, KZ Goodman, J Crafton, A Forlines, L Goss, ..., Journal of the American Helicopter Society 63 (1), 1-11
Gregory	2017	Pressure field of a yawed aspect ratio 1 circular cylinder, N Hiremath, D Shukla, A Pandey, JW Gregory, N Komerath, ASME International Mechanical Engineering Congress and Exposition 58424
Gregory	2017	Modifying the inlet characteristics of a Turbulent Coanda Wall Jet, A Pandey, JW Gregory, APS Division of Fluid Dynamics Meeting Abstracts, Q16. 002
Gregory	2017	Impinging sweeping jet heat transfer, L Agricola, R Prenter, R Lundgreen, M Hossain, A Ameri, J Gregory, ... 53rd AIAA/SAE/ASEE Joint Propulsion Conference, 4974
Gregory	2017	Aerodynamic Parameter Estimation for Derived Angle-of-Attack Systems, M McCrink, JW Gregory, AIAA Atmospheric Flight Mechanics Conference, 4061
Gregory	2017	Characterization of derived angle-of-attack and sideslip angle algorithms using monte carlo and piloted simulation, J Valasek, J Harris, S Pruchnicki, M McCrink, JW Gregory, D Sizoo, AIAA Atmospheric Flight Mechanics Conference, 4059
Gregory	2017	Impingement heat transfer characteristic of a sweeping jet, RK Lundgreen, MA Hossain, R Prenter, JP Bons, JW Gregory, A Ameri, 55th AIAA Aerospace Sciences Meeting, 1535
Gregory	2017	Effects of roughness on the performance of fluidic oscillators, MA Hossain, R Prenter, L Agricola, RK Lundgreen, A Ameri, JW Gregory, ... ,55th AIAA Aerospace Sciences Meeting, 0770
Gregory	2017	Data processing tools for dynamic pressure-sensitive paint, JW Crafton, JW Gregory, ME Sellers, W Ruyten, 55th AIAA Aerospace Sciences Meeting, 0701
Gregory	2017	Investigation of crossflow interaction of an oscillating jet, MA Hossain, R Prenter, RK Lundgreen, L Agricola, A Ameri, JW Gregory, ..., 55th AIAA Aerospace Sciences Meeting, 1690
Gregory	2017	Range and Endurance Estimation for Low-Re Electric UAS, M McCrink, JW Gregory, 55th AIAA Aerospace Sciences Meeting, 1214
Gregory	2017	Asymmetric distributions in pressure/load fluctuation levels during blade-vortex interactions, D Peng, JW Gregory, Journal of Fluids and Structures 68, 58-71
Gregory	2017	Blade element momentum modeling of low-Reynolds electric propulsion systems, MH McCrink, JW Gregory, Journal of Aircraft 54 (1), 163-176
IJtsma	2022	Cognitive Task Analysis of Contingency Management in Future Unmanned Aircraft Systems Traffic Management R Nijveldt, M IJtsma AIAA AVIATION 2022 Forum, 3620
IJtsma	2022	Metrics for Human-Robot Team Design: A Teamwork Perspective on Evaluation of Human-Robot Teams LM Ma, M IJtsma, KM Feigh, AR Pritchett ACM Transactions on Human-Robot Interaction
IJtsma	2022	Development of a Dynamic Model of Adaptation in Distributed Work Systems SE Duros, K Cassidy, M IJtsma, J Lo AIAA SCITECH 2022 Forum, 0371
IJtsma	2021	Modeling the Effects of Machine Rigidities on Joint Work Strategies K Albert, M IJtsma Proceedings of the Human Factors and Ergonomics Society Annual Meeting 65
IJtsma	2021	Requirements for Computational Approaches to Analyzing Resilience in Human-Machine Teams J Keller, M IJtsma Proceedings of the Human Factors and Ergonomics Society Annual Meeting 65

IJtsma	2021	A Critical Examination of Autonomous Flight Safety Systems From a Cognitive Systems Engineering Perspective: Challenges, Themes, and Outlying Risks J Keller, M IJtsmaa, EK Newtona
IJtsma	2021	Modeling Contingency Management in Unmanned Aircraft Systems Traffic Management E Barrett, M IJtsma 25th International Symposium on Aviation Psychology, 48
IJtsma	2020	IJtsma, M., Lassiter, W., Feigh, K.M., Savelsbergh, M., & Pritchett, A. R. (2020). An Integrated System for Mixed-Initiative Planning of Manned Spaceflight Operations. IEEE Transactions on Intelligent Systems.
IJtsma	2020	IJtsma, M. (2020). Survey of Designing for Adaptation in Human-Machine Teams. IEEE Transactions on Human-Machine Systems.
IJtsma	2020	IJtsma, M., Borst, C., Mulder, M., & Van Paassen, M.M. (2020) Adaptive Automation to Support Air Traffic Controller's Decision-Making. IEEE Transactions on Human-Machine Systems.
IJtsma	2020	IJtsma, M. (2020). Modeling of Human-Robot Interaction Strategies for Formative Design. Journal of Cognitive Engineering and Decision-Making.
IJtsma	2020	Ma, L., Ye, S., IJtsma, M., Feigh, K.M., & Pritchett, A.R. (2020). An Experimental Refinement of Computational Models of Human-Robot Teams. Paper presented at AIAA Scitech 2020 Forum.
IJtsma	2019	IJtsma, M., Ye, S., Feigh, K.M. & Pritchett, A.R. (2019). Simulating Human-Robot Teamwork Dynamics for Evaluation of Work Strategies in Human-Robot Teams. Paper presented at the International Symposium on Aviation Psychology, Dayton, OH.
IJtsma	2019	IJtsma, M., Ma, L.M., Feigh, K.M., & Pritchett, A.R. (2019). Analysis of Work Dynamics for Objective Function Allocation in Manned Spaceflight Operations. In M.A. Vidulich & P. Tsang (Eds.), Improving Aviation Performance through Applying Engineering Psychology, Advances in Aviation Psychology. In press.
IJtsma	2019	Ma, L.M., IJtsma, M., Pritchett, A.R., & Feigh, K.M. (2019). Expanding Metrics for Human-Robot Team Design and Evaluation. ACM Transactions on Human-Robotic Interaction.
IJtsma	2019	IJtsma, M. (2019). Computational Simulation of Adaptation of Work Strategies in Human-Robot Teams (doctoral thesis). Georgia Institute of Technology, United States
IJtsma	2019	IJtsma, M., Ma, L.M., Pritchett, A.R., & Feigh, K.M. (2019). Computational Methodology for the Allocation of Work and Interaction in Human-Robot Teams. Journal of Cognitive Engineering and Decision Making, 13 (4), 221-241.
IJtsma	2018	IJtsma, M., Ma, L.M., Feigh, K.M., & Pritchett, A.R. (2018). Demonstration of the "Work Models that Compute" Simulation Framework for Objective Function Allocation. Paper presented at the Human Factors and Ergonomics Society Annual Meeting, Philadelphia, PA.
IJtsma	2018	Baltrusaitis, M., Feigh, K.M., IJtsma, M., Lassiter, W., Pritchett, A.R., & Savelsbergh, M. (2018). Technologies for Mixed-Initiative Plan Management for Human Space Flight. Paper presented at the International Conference on Automated Planning and Scheduling, Delft, Netherlands.
IJtsma	2018	Ma, L.M., IJtsma, M., Feigh, K.M., Paladugu, A., & Pritchett, A.R. (2018). Modelling and Evaluating Failures in Human-Robot Teaming Using Simulation. Paper presented at the 2018 IEEE Aerospace Conference, Big Sky, MT.
IJtsma	2017	IJtsma, M., Pritchett, A.R., Ma, L.M., & Feigh, K.M. (2017). Modeling Human-Robot Interaction to Inform Function Allocation in Manned Spaceflight Operations. Paper presented at Robotics: Science and Systems, Boston, MA.
IJtsma	2017	IJtsma, M., Borst, C., Mercado-Velasco, G.A., Mulder, M., & Van Paassen, M.M. (2017) Adaptive Automation Based on Air Traffic Controller's Decision-Making. Paper presented at the International Symposium on Aviation Psychology, Dayton, OH.
IJtsma	2017	IJtsma, M., Ma, L.M., Pritchett, A.R., & Feigh, K.M. (2017). Work Dynamics of Taskwork and Teamwork in Function Allocation for Manned Spaceflight Operations. Paper presented at the International Symposium on Aviation Psychology, Dayton, OH.
Krening		none
Kumar	under review	Huang, M. and Kumar, M., "Aging Characterization of Lithium-ion Battery Cells for Electric Vehicles using an Electrochemical Model," Journal of Power Sources (Elsevier), under review
Kumar	2021	Efficacy of Parallelization in Adaptive Monte Carlo for Forecasting in GEO AW VanFossen, A Mangel, M Kumar AIAA SCITECH 2022 Forum, 0391
Kumar	2021	Optimal Allocation of Autonomous Vehicles using Chance-Constraints for Mapping a Semi-Structured Environment BA Jabr, R Aggarwal, M Kumar AIAA SCITECH 2022 Forum, 1413
Kumar	2021	Backtracking Hybrid A* for Resource Constrained Path Planning BT Ford, R Aggarwal, M Kumar, SG Manyam, D Casbeer, D Grymin AIAA SCITECH 2022 Forum, 1592
Kumar	2021	On the application of time delay embedding for the data driven discovery of nonlinear systems from partial state information S Narayanan, I Nayak, M Kumar AIAA SCITECH 2022 Forum, 2440
Kumar	2021	Warm Start Method for Solving Chance Constrained Optimal Control Problems Using Biased Kernel Density Estimators RE Keil, M Kumar, AV Rao Journal of Dynamic Systems, Measurement, and Control 143 (12)
Kumar	2021	Special issue on Space Situational Awareness from the 1st International Academy of Astronautics Conference on Space Situational Awareness or ICSSA 2020 R Bevilacqua, M Kumar, T Alfriend, H Krag, L Anselmo ACTA ASTRONAUTICA 181, 660-661

Kumar	2021	Multi-UAV Path Planning in a Spreading Wildfire R Aggarwal, AA Soderlund, M Kumar AIAA Scitech 2021 Forum, 0866
Kumar	2021	Parallelized Global Stochastic Optimization for Efficient Ensemble Enhancement within an Adaptive Monte Carlo Forecasting Platform AW VanFossen, M Kumar AIAA Scitech 2021 Forum, 1857
Kumar	2021	Detecting equilibrium state of dynamical systems using sliding-window reduced-order dynamic mode decomposition I Nayak, M Kumar, F Teixeira AIAA Scitech 2021 Forum, 1858
Kumar	2021	Method for solving chance constrained optimal control problems using biased kernel density estimators RE Keil, A T. Miller, M Kumar, AV Rao Optimal Control Applications and Methods 42 (1), 330-354
Kumar	2020	A Warm Start Method for Solving Chance Constrained Optimal Control Problems RE Kiel, M Kumar, AV Rao arXiv preprint arXiv:2007.10501
Kumar	2020	Risk aware suas path planning in an unstructured wildfire environment R Aggarwal, A Soderlund, M Kumar, D Grymin 2020 American Control Conference (ACC), 1767-1772
Kumar	2020	Biased Kernel Density Estimators for Chance Constrained Optimal Control Problems RE Keil, A Miller, M Kumar, AV Rao 2020 American Control Conference (ACC), 2820-2825
Kumar	2020	Dynamic Joint Probabilistic Data Association Framework for Target Tracking with Ground Robots S Krishnaswamy, S Vitullo, W Laidler, M Kumar 2020 American Control Conference (ACC), 2076-2081
Kumar	2020	IoT integrated system and efficient utilization of solar PV power energy P Sharma, DVS Brahmaiah, M Kumar Available at SSRN 3554936
Kumar	2020	Estimating the real-time spread of wildfires with vision-equipped uavs and temperature sensors via evidential reasoning AA Soderlund, M Kumar, R Aggarwal AIAA Scitech 2020 Forum, 1197
Kumar	2020	Collaborative Mapping of Semi-Structured Environment for Path Planning of Autonomous Vehicles BA Jabr, M Kumar AIAA Scitech 2020 Forum, 0613
Kumar	2020	Chance-Constrained Approach to Optimal Path Planning for Urban UAS R Aggarwal, M Kumar AIAA Scitech 2020 Forum, 0857
Kumar	2020	A Machine Learning Based Data Association Approach for Space Situational Awareness S Krishnaswamy, M Kumar AIAA Scitech 2020 Forum, 1375
Kumar	2020	A Higher Dimensional Tensor Decomposition Framework for Data Association in LEO Tracking S Krishnaswamy, M Kumar AIAA Scitech 2020 Forum, 1096
Kumar	2019	Krishnaswamy, S. and Kumar, M., "A Tensor Decomposition Approach to Data-Association for Multi Target Tracking," Journal of Guidance, Control and Dynamics (AIAA), under review
Kumar	2019	Yang, C. and Kumar, M., "A Closed-Loop Adaptive Monte Carlo Framework for Uncertainty Forecasting in Nonlinear Dynamic Systems," Journal of Guidance, Control and Dynamics, under review
Kumar	2019	Soderlund, A. and Kumar, M., "Optimization of Multi-Target Tracking within a Sensor Network via Information Guided Clustering", Journal of Guidance, Control and Dynamics, article in press
Kumar	2019	Yang, C. and Kumar, M., "A Closed-Loop Adaptive Monte Carlo Framework for Forecasting in GEO", Guidance, Navigation and Control Conference @AIAA SciTech, San Diego, CA, January 7-11, 2019
Kumar	2019	Soderlund, A. and Kumar, M., "Autonomous Wildfire Monitoring Using Airborne and Temperature Sensors in an Evidential Reasoning Framework", Guidance, Navigation and Control Conference @AIAA SciTech, San Diego, CA, January 7-11, 2019
Kumar	2019	Aggarwal, R. and Kumar, M., "A Probabilistic Approach to Optimization of Drogue-to-Main Parachute Transition Altitude for Ballistic Airdrops", Guidance, Navigation and Control Conference @AIAA SciTech, San Diego, CA, January 7-11, 2019
Kumar	2019	R. E. Keil, Aggarwal, R., A. V. Rao and Kumar, M., "Application of Chance-Constrained Optimal Control to Optimal Obstacle Avoidance", Guidance, Navigation and Control Conference @AIAA SciTech, San Diego, CA, January 7-11, 2019
Kumar	2019	Krishnaswamy, S. and Kumar, M., "Data Association via Tensor Compression with Application to GEO Multi-Target Tracking", Guidance, Navigation and Control Conference @AIAA SciTech, San Diego, CA, January 7-11, 2019
Kumar	2019	Huang, M., Kumar, M., Yang, C. and Soderlund, A., "Aging Estimation of Lithium-ion Battery Cell using an Electrochemical Model-Based Extended Kalman Filter", Guidance, Navigation and Control Conference @AIAA SciTech, San Diego, CA, January 7-11, 2019
Kumar	2018	Yang, C., and Kumar, M., "An Adaptive Monte Carlo Method for Uncertainty Forecasting in Perturbed Two-Body Dynamics," Acta Astronautica: Special Issue on Space Situation Awareness, article in press, 2018
Kumar	2018	Yang, C., and Kumar, M., "On the Effectiveness of Monte Carlo for Initial Uncertainty Propagation in Dynamical Systems," Automatica, Vol 87, pp 301-309, 2018
Kumar	2018	Soderlund, A. and Kumar, M., "Markovian Wildfire Modeling via Evidential Reasoning", 57th IEEE Conference on Decision and Control (CDC), Miami, FL, December 17-19, 2018
Kumar	2018	Huang, M. and Kumar, M., "Electrochemical Model Based Aging Characterization of Lithium-Ion Battery Cell in Electric Vehicles", ASME Dynamic Systems and Control Conference, Atlanta, GA, Sep 30 - Oct 3, 2018
Kumar	2018	Yang, C. and Kumar, M., "Discrepancy Driven Adaptive Monte Carlo for Uncertainty Forecasting in Nonlinear Dynamic Systems," American Control Conference, Milwaukee, WI, June 27-29, 2018

Kumar	2018	Kim., D. and Kumar, M., "Development of a Framework for Selection and Combination of Sensors to Achieve Intelligence of Autonomous Platforms", John L. Junkins Dynamical Systems Symposium, College Station, TX, May 20-21, 2018
Kumar	2018	Soderlund, A., Kumar, M. and Kim, D., "Rapid Clustering for Optimal Sensor Selection in Heterogeneous Wireless Sensor Networks," Guidance, Navigation and Control Conference @AIAA SciTech, Orlando, FL, Jan 8-12, 2018
Kumar	2018	Krishnaswamy, S. and Kumar, M., "A Tensor Decomposition Approach to Data Association," Guidance, Navigation and Control Conference @AIAA SciTech, Orlando, FL, Jan 8-12, 2018
Kumar	2017	Yang, C. and Kumar, M., "On the Transient Performance of Monte Carlo Simulations for Initial Uncertainty Forecasting," 56th IEEE Conference on Decision and Control, Melbourne, Australia, Dec 12-15, 2017
Kumar	2017	Soderlund, A. and Kumar, M., "Consensus-based Object Tracking within Heterogeneous Wireless Sensor Networks", 1st IAA International Conference on Space Situational Awareness, Orlando, FL, Nov 13-15 2017
Kumar	2017	Zhao, Z. and Kumar, M., "A Split-Bernstein Approach to Chance-Constrained Optimal Control," Journal of Guidance, Control and Dynamics, Vol. 40, No. 11, pp. 2782-2795, 2017
Kumar	2017	Yang, C. and Kumar, M., "An Adaptive Monte Carlo Method for Uncertainty Forecasting in Perturbed Two-Body Dynamics", 1st IAA International Conference on Space Situational Awareness, Orlando, FL, Nov 13-15 2017
Kumar	2017	Krishnaswamy, S. and Kumar, M., "A Tensor Decomposition Based Data Association for Target Tracking," 1st IAA International Conference on Space Situational Awareness, Orlando, FL, Nov 13-15 2017
McCrink	2022	Quadrotor Performance Measurement during Wake and Gust Encounters M McCrink, D Seth, S Herz AIAA AVIATION 2022 Forum, 4064
McCrink	2022	Rotor Propulsion Modeling for Low Reynolds Number Flow ($Re < 105$) for Martian Rotorcraft Flight I Besignor, D Seth, M McCrink AIAA AVIATION 2022 Forum, 3958
McCrink	2021	Design and development of a high-speed UAS for beyond visual line-of-sight operations MH McCrink, JW Gregory Journal of Intelligent & Robotic Systems 101 (2), 1-16
McCrink	2021	Low-Speed Aerodynamic Characteristics of a Delta Wing with Articulated Wing Tips CW Trussa, CA Whitfield, JA Brandon, M McCrink AIAA Aviation 2021 Forum, 2536
McCrink	2021	Performance Analysis of a Serpentine Inlet Design for an Unmanned Aerial Vehicle JA Brandon, CA Whitfield, CW Trussa, M McCrink AIAA AVIATION 2021 FORUM, 2488
McCrink	2021	Investigation of Longitudinal Aero-Propulsive Interactions of a Small Quadrotor Unmanned Aircraft System G Altamirano, M McCrink AIAA SciTech 2021 Forum, 1310
McCrink	2021	Low-Altitude Radar Track Filtering and Classification Using Deep Learning BL Emshoff, M McCrink, JW Gregory AIAA Scitech 2021 Forum, 1411
McCrink	2020	The unsteady Kutta condition on an airfoil in a surging flow W Zhu, MH McCrink, JP Bons, JW Gregory Journal of Fluid Mechanics 893
McCrink	2020	Derived angle of attack and sideslip angle characterization for general aviation J Valasek, J Harris, S Pruchnicki, M McCrink, J Gregory, DG Sizoo Journal of Guidance, Control, and Dynamics 43 (6), 1039-1055
McCrink	2020	Ice Accretion Analysis for the Development of the HeatCoat Electrothermal Ice Protection System K Yugulis, D Chase, M McCrink AIAA Aviation 2020 Forum, 2834
McCrink	2020	Aerodynamic performance and trailing edge flow physics on an airfoil in an oscillating freestream W Zhu, M McCrink, JP Bons, JW Gregory AIAA Scitech 2020 Forum, 1758
McCrink	2019	Human response and injury resulting from head impacts with unmanned Aircraft systems DB Stark, AK Willis, Z Eshelman, YS Kang, R Ramachandra, JH Bolte IV, Matthew McCrink Stapp car crash journal 63, 29-64
McCrink	2019	Impact of rotor-airframe orientation on the aerodynamic and aeroacoustic characteristics of small unmanned aerial systems Z Wang, Q Henricks, M Zhuang, A Pandey, M Sutkowy, B Harter, Matthew McCrink, James Gregory Drones 3 (3), 56
McCrink	2019	Identification of Lagrangian Coherent Structures using the Background-Oriented Schlieren Method BN Harter, M McCrink, JW Gregory AIAA Aviation 2019 Forum, 2810
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McCrink	2018	Visualization of Lagrangian Coherent Structures in Vortex Formation and Advection B Harter, M McCrink, J Gregory Bulletin of the American Physical Society 63
McCrink	2018	Unmanned Aerial System Framework for Human-Robot Interaction H Lee, M McCrink, JW Gregory 2018 Atmospheric Flight Mechanics Conference, 2984
McCrink	2018	Measurement of unsteady gusts in an urban wind field using a uav-based anemometer RL Thorpe, M McCrink, JW Gregory 2018 Applied Aerodynamics Conference, 4218
McCrink	2018	Design and Development of a High-Speed UAS for Beyond Line-of-Sight Operation M McCrink, JW Gregory 2018 AIAA Information Systems-AIAA Infotech@ Aerospace, 0750
McCrink	2018	Aerodynamic Characterization of a Quad-Rotor Helicopter A Pandey, ML Sutkowy, M McCrink, JW Gregory 2018 AIAA Aerospace Sciences Meeting, 1526
McCrink	2018	A comprehensive approach to study aerodynamic and aeroacoustic performances of small multicopter unmanned aerial systems Z Wang, A Pandey, M Sutkowy, B Harter, M McCrink, JW Gregory, Mei Zhuang 2018 AIAA Aerospace Sciences Meeting, 0268

McCrink	2018	Rotor Wake Structure Development in Low Reynolds Number Conditions ML Sutkowy, A Pandey, M McCrink, JW Gregory 2018 AIAA Aerospace Sciences Meeting, 1830
McCrink	2017	Analysis of radar and ADS-B influences on aircraft detect and avoid (DAA) systems W Semke, N Allen, A Tabassum, M McCrink, M Moallemi, K Snyder, Evan Arnold, Dawson Stott, Michael G Wing Aerospace 4 (3), 49
McCrink	2017	Aerodynamic Parameter Estimation for Derived Angle-of-Attack Systems M McCrink, JW Gregory AIAA Atmospheric Flight Mechanics Conference, 4061
McCrink	2017	Characterization of derived angle-of-attack and sideslip angle algorithms using monte carlo and piloted simulation J Valasek, J Harris, S Pruchnicki, M McCrink, JW Gregory, D Sizoo AIAA Atmospheric Flight Mechanics Conference, 4059
McCrink	2017	Range and Endurance Estimation for Low-Re Electric UAS M McCrink, JW Gregory 55th AIAA Aerospace Sciences Meeting, 1214
McCrink	2017	Blade element momentum modeling of low-reynolds electric propulsion systems MH McCrink, JW Gregory Journal of Aircraft 54 (1), 163-176
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