

Paul G. Savage Publications

“Simplified Description of Optical Gyros – A Rigorous Analytical Development Without Vector Calculus”, SAI WBN-14027, www.strapdownassociates.com, May 23, 2020.

“Generating Strapdown Specific-Force/Angular-Rate For Specified Attitude/Position Variation From A Reference Trajectory”, SAI WBN-14026, www.strapdownassociates.com, April 21, 2020.

“Appendices F, G, And H to Generating Strapdown Specific-Force/Angular-Rate For Specified Attitude/Position Variation From A Reference Trajectory”, SAI WBN-14026a, www.strapdownassociates.com, April 21, 2020.

“Modern Strapdown Attitude Algorithms And Their Accuracy, Versus Accuracy Requirements For Unaided Strapdown Inertial Navigation”, SAI WBN-14025, www.strapdownassociates.com, February 9, 2020.

“Analytical Description Of Optical Gyros”, SAI WBN-14024, www.strapdownassociates.com, April 3, 2019 (Updated May 23, 2020).

“Analytically Deriving How Ring Laser And Fiber Optic Gyros Measure Angular Rotation”, SAI WBN-14023, www.strapdownassociates.com, November 1, 2018 (Updated March 31, 2019).

“Differential Point-To-Point Relativity In Rotating Coordinates”, SAI WBN-14022, www.strapdownassociates.com, May 28, 2018.

“Improved Strapdown Inertial Measurement Unit Calibration Procedures”, IEEE/ION Position Location and Navigation Symposium (PLANS), Monterey, California, Apr 23-26, 2018

“Differential Kinematics Of Point-To-Point Relativity”, SAI WBN-14021, www.strapdownassociates.com, March 11, 2018.

“Improved Strapdown Inertial System Calibration Procedures, Part 1, Procedures And Accuracy Analysis”, SAI WBN-14020-1, www.strapdownassociates.com, October 20, 2017 (Updated January 11, 2018).

“Improved Strapdown Inertial System Calibration Procedures, Part 2, Analytical Derivations”, SAI WBN-14020-2, www.strapdownassociates.com, October 20, 2017 (Updated January 11, 2018).

“Improved Strapdown Inertial System Calibration Procedures, Part 3, Numerical Examples”, SAI WBN-14020-3, www.strapdownassociates.com, November 10, 2017, (Updated January 11, 2018).

- “Down-Summing Rotation Vectors For Strapdown Attitude Updating”, SAI WBN-14019, www.strapdownassociates.com, July 16, 2017.
- “Digital Integration Algorithm Error For Band-Limited Random Process Inputs”, SAI WBN-14018, www.strapdownassociates.com, June 26, 2017.
- “Skewed Sensor Failure Detection Using Parallel Navigation Solutions”, SAI WBN-14017, www.strapdownassociates.com, June 16, 2016.
- “Blazing Gyros - The Movie”, SAI WBN-14016, www.strapdownassociates.com, May 16, 2016.
- “Introduction To The Kinematics Of Point-To-Point Relativity”, SAI WBN-14015, www.strapdownassociates.com, April 17, 2016 (Updated May 3, 2018).
- “Geordie’s Quaternion Decision”, SAI WBN-14014, www.strapdownassociates.com, February 17, 2016.
- “Program Management”, SAI WBN-14013, www.strapdownassociates.com, January 18, 2016.
- “Designing An Extended Kalman Filter For A Stellar Aided Strapdown Inertial Navigation System”, SAI WBN-14012, www.strapdownassociates.com, January 16, 2016.
- “Performance Analysis Of Strapdown Systems”, SAI WBN-14011, www.strapdownassociates.com, June 2, 2016.
- “Computational Elements For Strapdown Systems”, SAI WBN-14010, www.strapdownassociates.com, May 31, 2015.
- “Blazing Gyros - The Evolution Of Strapdown Inertial Navigation Technology For Aircraft - Web Version”, SAI WBN-14009, www.strapdownassociates.com, May 29, 2015.
- “Lever Arm Corrections During INS Transfer Alignment With Wide Angle Initial Heading Error”, SAI WBN-14008, www.strapdownassociates.com, April 17, 2015.
- “Coarse Leveling Of INS Attitude Under Dynamic Trajectory Conditions”, SAI WBN-14007, www.strapdownassociates.com, January 28, 2014.
- “Moving Base Alignment With Large Initial Heading Error”, SAI WBN-14006, www.strapdownassociates.com, October 3, 2014.
- “Modifying The Kalman Filter Measurement To Mitigate Second Order Error Amplification In INS Velocity Matching Alignment Applications”, SAI WBN-14005, www.strapdownassociates.com, July, 15, 2014.
- “Fixed Gain Digital Filter Design For Specified Phase Versus Frequency Response”, SAI WBN-14004, www.strapdownassociates.com, June 29, 2014.

“Schuler Oscillations”, SAI WBN-14003, www.strapdownassociates.com, June 27, 2014.

“Redefining Gravity And Newtonian Natural Motion”, SAI WBN-14002, www.strapdownassociates.com, May 21, 2014.

“Mitigating Second Order Error Effects In Linear Kalman Filters Using Adaptive Process And Measurement Noise”, SAI WBN-14001, www.strapdownassociates.com, May 16, 2014.

Introduction To Strapdown Inertial Navigation Systems, Previously provided as part of Paul G. Savage's Introductory Strapdown Inertial Navigation course, Now Available For Purchase From Strapdown Associates, Inc.

Strapdown Inertial Navigation Lecture Notes, Previously provided as part of Paul G. Savage's Introductory Strapdown Inertial Navigation Course, Now Available For Purchase From Strapdown Associates, Inc.

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Filter”, *Infrared Physics*, 1963, Vol. 3, pp. 49-68, Pergamon Press Ltd., Printed in
Great Britain.