Conference presentations

Aaron Nielsen

2025-06-29

Blakely, B., & Nielsen, A. (2025). Analysis of magnetic anomaly maps and navigation performance using flight test data. *2025 IEEE/ION Position, Location and Navigation Symposium (PLANS), Salt Lake City, UT*, 802–808.

Nielsen, A., & Kahler, B. (2025). Radar reflector design for improved detection of cyclists (submitted). *NAECON 2025*.

Blakely, B., Nielsen, A., Brinkley, D., & Cameron-Gonzalez, A. (2025, June). Magnetic anomaly map error analysis. *Joint Navigation Conference 2025*.

Blakely, B., Sharma, R., Nielsen, A., & Taylor, C. (2025, June). MagNet: Magnetic networks for navigation. *Joint Navigation Conference 2025*.

Duff, P., & Nielsen, A. (2025, June). Reference magnetic maps in marine areas from legacy data: Quantitative comparison of frequency dependent features, errors, and uncertainties in gridded magnetic data. *Joint Navigation Conference 2025*.

Kurdian, A., Brink, K., McNally, B., Smearcheck, M., & Nielsen, A. (2025, June). Magnetic and gravity-based experimental navigation test and assessment (MAGENTA). *Joint Navigation Conference 2025*.

Whitney, S., & Nielsen, A. (2025, June). Factor graph-based magnetic anomaly navigation: A robust bayesian inference approach. *Joint Navigation Conference 2025*.

Duff, P., & Nielsen, A. (2024). Magnetic map-making for advanced applications: Quantitative comparison of frequency dependent features, errors, and uncertainties in gridded magnetic data. *AGU 2024*.

Lathrop, F., Nielsen, A., & Taylor, C. (2024). Magnetic sensor compensation utilizing factor graph estimation. *ION Joint Navigation Conference 2024*. <https://www.ion.org/jnc/abstracts.cfm?paperID=13344>

Blakely, B., Bonifaz, J., & Nielsen, A. (2024, June). Improving tolles-lawson calibration with F-16 data. *ION Joint Navigation Conference 2024*. <https://www.ion.org/jnc/abstracts.cfm?paperID=13247>

Rutkowski, A., Kerr, D., & Nielsen, A. (2024, June). On the accuracy of upward continuation and interpolation of magnetic anomaly maps. *ION Joint Navigation Conference 2024*. <https://www.ion.org/jnc/abstracts.cfm?paperID=13329>

Srinivasan, A., & Nielsen, A. (2024, June). Temporal anomaly corrections for magnetic anomaly navigation. *ION Joint Navigation Conference 2024*. <https://www.ion.org/jnc/abstracts.cfm?paperID=13252>

Whitney, S., Nielsen, A., & Grass, F. van. (2024, June). Comparative study of transect batch processing using variable map fidelity for magnetic anomaly navigation. *ION Joint Navigation Conference 2024*. <https://www.ion.org/jnc/abstracts.cfm?paperID=13338>

Blakely, B., Bonifaz, J., & Nielsen, A. (2024, September). Magnetic calibration for navigation interpretation and applicability. *ION GNSS+ 2024*. <https://www.ion.org/gnss/abstracts.cfm?paperID=13837>

Whitney, S., Nielsen, A., & Grass, F. van. (2024, September). Magnetic anomaly navigation using a multi-vehicle batch processing algorithm of variable map fidelity. *ION GNSS+ 2024*. <https://www.ion.org/gnss/abstracts.cfm?paperID=13646>

Duff, P., & Nielsen, A. (2023). Comparative uncertainty estimation for global magnetic grids: Machine learning and statistical approaches. *Proceedings of American Geophyiscal Union 2023*.

Duff, P., & Nielsen, A. (2023). *Estimating frequency dependent errors and uncertainties in gridded magnetic data, GP33D-0597, AGU23 11-15 dec.*

Srinivasan, A., Bergeron, L., & Nielsen, A. (2023). *Extended geomagnetic ground reference station model and noise characterization, GP33D-0600, AGU23 11-15 dec.* Presented at AGU23 11-15 Dec.

Bergeron, L., & Nielsen, A. (2023, April). Magnetic anomaly mapping for navigation. *2023 IEEE/ION Position, Location and Navigation Symposium (PLANS)*. <https://doi.org/10.1109/plans53410.2023.10140125>

Bergeron, L., & Nielsen, A. (2023, June). Magnetic anomaly mapping for navigation. *2023 Joint Navigation Conference*.

Blakely, B., Bonifaz, J., & Nielsen, A. (2023, September). Tolles-lawson coefficient dependence using F-16 data set. *Proceedings of GNSS+ 2023*. <https://www.ion.org/gnss/abstracts.cfm?paperID=12765>

Canciani, A., & Nielsen, A. (2023). *Absolute positioning using magnetic anomaly fields: An introduction to the technique and a summary of extensive ongoing development of aircraft, surface ship, and sub-surface ship navigation systems utilizing earth magnetic anomaly fields to navigate. (Invited) GP32A-03* (GP32A-03). AGU 2023.

Nielsen, A., & Gray, J. (2022). Magnetic anomaly navigation: Operational aircraft sensors. *ION JNC 2022*.

Lathrop, F., Taylor, C., & Nielsen, A. (2022, October). Accurate magnetic field compensation in large platform fields. *ION GNSS+, the International Technical Meeting of the Satellite Division of the Institute of Navigation*. https://doi.org/<https://doi.org/10.33012/2022.18538>

Nielsen, A., Gray, J., & Bonifaz, J. (2022, October). Accounting for magnetic anomaly map artifacts in magnetic navigators. *ION GNSS+ 2022*. <https://doi.org/10.33012/2022.18323>

Nielsen, A., Gray, J., Curro, J., Boettcher, E. J., & Leishman, R. (2021). Operationalizing MagNav. *ION JNC 2021*.

Samanant, P., Stephens, T., Compton, R., Morton, B., Canciani, A., & Nielsen, A. (2021). Honeywell magnetic anomaly aided navigation. *ION JNC 2021*.

Holzer, J. R., Aouaroun, T., Newrock, R. S., Markus, J., Herbert, S., Lobb, C. J., Nielsen, A., & Straughn, B. (2000). Current distribution in josephson junction arrays. *Bulletin of the American Physical Society, APS March Meeting 2000*.