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Journal publications

- Bezděk, A., Sebera, J., Teixeira da Encarnação, J., Klokočník, J., (2016). "Time-variable gravity fields derived from GPS tracking of Swarm". In: Geophysical Journal International 205.3, pp. 1665–1669. DOI: 10.1093/gji/ggw094.
- Siemes, C., de Teixeira da Encarnação, J., Doornbos, E., IJssel, J., Kraus, J., Pereštý, R., Grunwaldt, L., Apelbaum, G., Flury, J., Holmdahl Olsen, P. E., (2016). "Swarm accelerometer data processing from raw accelerations to thermospheric neutral densities". In: *Earth, Planets and Space* 68.1, p. 92. DOI: 10.1186/s40623-016-0474-5.
- 3. **Teixeira da Encarnação, J.**, Arnold, D., Bezděk, A., Dahle, C., Doornbos, E., IJssel, J., Jäggi, A., Mayer-Gürr, T., Sebera, J., Visser, P., Zehentner, N., (2016). "Gravity field models derived from Swarm GPS data". In: *Earth, Planets and Space* 68.1, p. 127. DOI: 10.1186/s40623-016-0499-9.
- 4. Van Den Ijssel, J., **Encarnação, J.**, Doornbos, E., Visser, P., (2015). "Precise science orbits for the Swarm satellite constellation". In: *Advances in Space Research* 56.6, pp. 1042–1055. DOI: 10.1016/j.asr.2015.06.002.
- 5. Hashemi Farahani, H., Ditmar, P., Klees, R., **Teixeira da Encarnação, J.**, Liu, X., Zhao, Q., Guo, J., (2013). "Validation of static gravity field models using GRACE K-band ranging and GOCE gradiometry data". In: *Geophysical Journal International* 194.2, pp. 751–771. DOI: 10.1093/gji/ggt149.
- Olsen, N., Friis-Christensen, E., Floberghagen, R., Alken, P., Beggan, C. D., Chulliat, A., Doornbos, E., Encarnação, J. T., Hamilton, B., Hulot, G., IJssel, J., Kuvshinov, A., Lesur, V., Lühr, H., Macmillan, S., Maus, S., Noja, M., Olsen, P. E. H., Park, J., Plank, G., Püthe, C., Rauberg, J., Ritter, P., Rother, M., Sabaka, T. J., Schachtschneider, R., Sirol, O., Stolle, C., Thébault, E., Thomson, A. W. P., Tøffner-Clausen, L., Velímský, J., Vigneron, P., Visser, P. N., (2013). "The Swarm Satellite Constellation Application and Research Facility (SCARF) and Swarm data products". In: Earth, Planets and Space 65.11, pp. 1189–1200. DOI: 10.5047/eps.2013.07.001.
- 7. Visser, P., Doornbos, E., Van Den IJssel, J., Da Encarnação, J., **Teixeira da Encarnação, J.**, (2013). "Thermospheric density and wind retrieval from Swarm observations". In: *Earth, Planets and Space* 65.11, pp. 1319–1331. DOI: 10.5047/eps.2013.08.003.
- 8. Ditmar, P., **Encarnação**, J., Hashemi Farahani, H., (2012). "Understanding data noise in gravity field recovery on the basis of inter-satellite ranging measurements acquired by the satellite gravimetry mission GRACE". In: *Journal of Geodesy* 86.6, pp. 441–465. DOI: 10.1007/s00190-011-0531-6.
- 9. Gunter, B. C. B., **Encarnacao, J.**, Ditmar, P., Klees, R., Encarnaçao, J., Ditmar, P., Klees, R., (2011). "Using Satellite Constellations for Improved Determination of Earth's Time-Variable Gravity". In: *Journal of Spacecraft and Rockets* 48.2, pp. 368–377. DOI: 10.2514/1.50926.
- Resendes, D. P., Mota, S., Mendonça, J. T., Sanders, B., Encarnação, J., Del Amo, J. G., (2007). "Laser Propulsion for Ground Launch". en. In: *Journal of Propulsion and Power* 23.1, pp. 73–80. DOI: 10. 2514/1.24527.

Conference proceedings (peer-reviewed)

1. Gunter, B. C., **Encarnação**, **J.**, Ditmar, P., Klees, R., Van Barneveld, P. W. L., Visser, P., (2012). "Deriving global time-variable gravity from precise orbits of the Iridium NEXT constellation". In: *Advances in the Astronautical Sciences*. Vol. 142, pp. 2087–2096. URL: http://www.univelt.com/book=3354.

- 2. Gunter, B. C., Ditmar, P., **Encarnação**, J., (2010). "The determination of time variable gravity from a constellation of non-dedicated satellites". In: Advances in the Astronautical Sciences. Pittsburgh, pp. 1999–2007. URL: http://www.univelt.com/book=1349.
- 3. Gunter, B. C., **Encarnação**, **J.**, Ditmar, P., Klees, R., (2009). "The use of satellite constellations and formations for future gravity field missions". In: *Advances in the Astronautical Sciences*. Savannah, pp. 1357–1368. URL: http://www.univelt.com/book=1451.
- 4. **Encarnação**, **J.**, Ditmar, P., Liu, X., (2008). "Analysis of Satellite Formations in the Context of Gravity Field Retrieval". In: *3rd International Symposium on Formation Flying*, *Missions and Technologies* (*SP-654*). Ed. by K Fletcher. Vol. ESA SP-654. 654 SP. Rijswijk: ESA Communication Production Office, pp. 1–9. URL: https://tinyurl.com/3rdISFFMT.
- 5. **Encarnação, J.**, Klees, R., Zapreeva, E., Ditmar, P., Kusche, J., (2008). "Influence of Hydrology-Related Temporal Aliasing on the Quality of Monthly Models Derived from GRACE Satellite Gravimetric Data". In: *Observing our Changing Earth* 133, pp. 323–328. DOI: 10 . 1007/978-3-540-85426-5_38.
- Resendes, D. P., Mota, S., Mendonça, J. T., Sanders, B., Encarnação, J., Amo, J. G., Myrabo, L. N., (2006). "Laser Propulsion for ESA Missions: Ground to Orbit Launch Project Overview Part 1". en. In: AIP Conference Proceedings. Vol. 830. 1. AIP, pp. 576–587. DOI: 10.1063/1.2203299.
- 7. Resendes, D. P., Mota, S., Mendonça, J. T., Sanders, B., **Encarnação, J.**, Amo, J. G., Prins, T. N. O., (2005). "Laser Propulsion for Ground to Orbit Launch". In: *29th International Electric Propulsion Conference*. Vol. 23. 1. IEPC-2005-310, pp. 1–8. DOI: 10.2514/1.24527.

Invited Presentations

- 1. **Teixeira Encarnação**, **J.** (2017). "Satellite Gravimetry". In: Summer School On Data Assimilation and its Applications In Oceanography, Hydrology, Risk & Safety And Reservoir Engineering. URL: http://data-assimilation.com.
- Teixeira Encarnação, J., Arnold, D., Bezdek, A., Dahle, C., Doornbos, E., Ijssel, J. V. D., Jäggi, A., Mayer-gürr, T., Sebera, J., Visser, P., Zehentner, N., (2015). "First monthly gravity field solutions derived from GPS orbits of Swarm". In: AGU Fall Meeting Abstracts. San Francisco, CA, USA. URL: https://agu.confex.com/agu/fm15/webprogram/Paper71877.html.

Conference Attendance

- 1. **Encarnacao**, J., Save, H., Siemes, C., Doornbos, E., Tapley, B., (2017). "Temperature corrected-calibration of GRACE's accelerometer". In: *AGU Fall Meeting Abstracts*. New Orleans. URL: https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/288232.
- Teixeira Encarnação, J., Arnold, D., Bezdek, A., Dahle, C., Doornbos, E., Ijssel, J. V. D., Jäggi, A., Mayer-gürr, T., Sebera, J., Shum, C., Visser, P., Zehentner, N., (2017a). "Gravity field models derived from Swarm GPS data". In: EGU General Assembly. Vienna, Austria. URL: https://tinyurl.com/gswarmEGU2017.
- Teixeira Encarnação, J., Arnold, D., Bezdek, A., Dahle, C., Jäggi, A., Mayer-gürr, T., Sebera, J., Shum, C., Visser, P., Zehentner, N., (2017b). "Swarm as an Observing Platform for Large Surface Mass Transport Processes". In: 4th Swarm Science Meeting. Banff, Canada. URL: http://tinyurl.com/Swarm-Banff.
- 4. **Teixeira Encarnação, J.**, Arnold, D., Bezdek, A., Dahle, C., Jäggi, A., Mayer-gürr, T., Sebera, J., Visser, P., Zehentner, N., (2016). "Gravity field models derived from Swarm GPS data". In: *EGU General Assembly*. Vienna, Austria. DOI: 10.13140/RG.2.1.3909.4642.
- 5. **Encarnacao**, J., Ditmar, P., Klees, R., (2015). "Impact of Orbit Position Errors on Future Satellite Gravity Models". In: American Geophysical Union, Fall Meeting 2015. G31B-1114. URL: http://adsabs.harvard.edu/abs/2015AGUFM.G31B1114E.

- 6. **Teixeira Encarnação, J.**, IJssel, J., Doornbos, E., Visser, P. N., (2015). "Frequency domain combination of POD-driven and measured accelerations". In: *5th Swarm Data Quality Workshop*. Paris, France.
- Teixeira Encarnação, J. G., IJssel, J., Doornbos, E., Visser, P., (2014a). "POD-assisted calibration of Swarms Accelerometer Data". In: 4th Swarm Data Quality Workshop. December. Postdam, Germany.
- 8. **Teixeira Encarnação, J.**, Doornbos, E., IJssel, J., Visser, P. N., (2014b). "Combination of Swarm's Uncalibrated Accelerometer Data with POD-Based Accelerometry". In: *3rd Swarm Science Meeting*. Copenhagen, Denmark, p. 2.
- 9. **Teixeira Encarnação**, **J.**, IJssel, J., Doornbos, E., Visser, P. N., (2014c). "Preliminary analysis of accelerometer data". In: *2nd Swarm Data Quality Workshop*. Rome, Italy.
- 10. **Encarnação, J.**, Ditmar, P., Liu, X., (2008). "Analysis of Satellite Formations in the Context of Gravity Field Retrieval". In: *3rd International Symposium on Formation Flying, Missions and Technologies* (*SP-654*). Ed. by K Fletcher. Vol. ESA SP-654. 654 SP. Rijswijk: ESA Communication Production Office, pp. 1–9. URL: https://tinyurl.com/3rdISFFMT.
- 11. **Teixeira Encarnação, J.**, Ditmar, P. G., Klees, R., (2008). "Spectral analysis of positioning modelling errors in gravimetric data". In: *IAG Symposium on Gravity, Geoid, and Earth Observation*. Chania, Greece.
- 12. **Teixeira Encarnação, J. G.**, Ditmar, P. G., Klees, R., (2007a). "Temporal aliasing in GRACE monthly solutions". In: *Intergeo*. Leipzig, Germany.
- 13. **Teixeira Encarnação**, **J.**, Ditmar, P. G., Klees, R., (2007b). "Influence of hydrology-related temporal aliasing on the quality of monthly models derived from GRACE satellite gravimetric data". In: VMSG Symposium. Utrecht, The Netherlands.
- 14. **Encarnação, J.** (2002). "Single Stage To Orbit Minimum Requirements Through Numerical Simulation". In: 34th COSPAR Scientific Assembly, The Second World Space Congress. Houston, TX, USA: IAF. URL: http://adsabs.harvard.edu/abs/2002iaf..confE.984T.

Conference Contributions

- 1. Doornbos, E., **de Teixeira da Encarnação**, t., IJss, J., Siemes, C., Grunwaldt, L., Peresty, R., Kraus, J., Flury, J., Apelbaum, G., Olsen, P. E. H., (2016). "Thermospheric neutral densities derived from Swarm accelerometer and GPS data". In: *ESA Living Planet Symposium 2016*.
- Jäggi, A., Meyer, U., Jean, Y., Susnik, A., Dach, R., Weigelt, M., Dam, T., Li, Z., Chen, Q., Flechtner, F., Gruber, C., Poropat, L., Güntner, A., Gouweleeuw, B., Mayer-Gürr, T., Kvas, A., Klinger, B., Martinis, S., Zwenzner, H., Bruinsma, S., Lemoine, J.-M., Biancale, R., Flury, J., Bandikova, T., Bourgogne, S., Steffen, H., Teixeira da Encarnação, João, Horwath, M., (2016). "European Gravity Service for Improved Emergency Management-Status and Project Highlights". In: International Association of Geodesy Symposia. Springer, p. 1.
- 3. Siemes, C., Grunwaldt, L., Peresty, R., Kraus, J., Doornbos, E., **de Teixeira da Encarnação**, t., IJssel, J., Flury, J., Apelbaum, G., Olsen, P. E. H., (2016). "Improvements of the Swarm Accelerometer Data Processing". In: *ESA Living Planet Symposium 2016*.
- 4. Sneew, N, Iran Pour, S, Reubelt, T, Daras, I, Murböck, M, Pail, R, Gruber, T, Visser, P, **Encarnacao**, J, IJssel, J, (2016). "ESA SC4MGV Study: Assessment of Satellite Constellations for Monitoring the Variations in Earth Gravity Field". In: *Living Planet Symposium 2016*.
- 5. Astafyeva, E, Zakharenkova, I, Foerster, M, Doornbos, E, **de Teixeira da Encarnação**, t., Siemes, C, (2015). "Ionospheric and Thermospheric Response to the 2015 St. Patrick's Day Storm: a Global Multi-Instrumental Overview". In: *AGU Fall Meeting Abstracts*.

- 6. Doornbos, E, Siemes, C, **de Teixeira da Encarnação**, t., Perestý, R, Grunwaldt, L, Kraus, J, Holmdahl Olsen, P., IJssel, J, Flury, J, Apelbaum, G, (2015). "Processing of Swarm Accelerometer Data into Thermospheric Neutral Densities". In: *AGU Fall Meeting Abstracts*.
- 7. Siemes, C., Encarnacao, J., Doornbos, E., Perestý, R., Grunwaldt, L., Kraus, J., Olsen, P. E. H., IJssel, J., Flury, J., Apelbaum, G., (2015). "Processing of Swarm Accelerometer Data into Thermospheric Neutral Densities". In: AGU Fall Meeting Abstracts. Abstract SA31D-2371. San Francisco, CA, USA. URL: http://abstractsearch.agu.org/meetings/2015/FM/SA31D-2371.html.
- 8. Bruinsma, S, Doornbos, E, Siemes, C, Perestý, R, Kraus, J, Bezdek, A, IJssel, J, **de Teixeira da Encar-nação**, t., Visser, P., (2014). "Results from the First Year of Swarm GPS Receiver and Accelerometer Data." In: AGU Fall Meeting Abstracts.
- 9. Iran Pour, S, Weigelt, M, Murböck, M, Tonetti, S, Visser, P, Daras, I, **Encarnacao, J**, Cesare, S, Siemes, C, IJssel, J, (2014). "Search strategies for optimal double pair scenarios for future gravity satellite missions-experience from the ESA SC4MGV project". In: 5th International GOCE User Workshop.
- 10. Doornbos, E, Bruinsma, S, Fritsche, B, Visser, P, Van Den IJssel, J, **de Teixeira da Encarnação**, t., Kern, M, (2013). "Air density and wind retrieval using GOCE data". In: *ESA Living Planet Symposium*. Vol. 722, p. 7.
- Olsen, N., Alken, P., Beggan, C., Chulliat, A., Doornbos, E., Encarnação, J., Floberghagen, R., Friis-Christensen, E. A., Hamilton, B., Hulot, G., IJssel, J. V. D., Kuvshinov, A. V., Lesur, V., Luhr, H., Macmillan, S., Maus, S., Olsen, P. E. H., Park, J., Plank, G., Püthe, C., Ritter, P., Rother, M., Sabaka, T. J., Stolle, C., Thebault, E., Thomson, A. W. P., Tøffner-Clausen, L., Velimsky, J., Visser, P. N., (2013). "SCARF the swarm satellite constellation application and research facility". In: ESA Living Planet Symposium. Edinburgh, United Kingdom: European Space Agency, p. 100. URL: https://tinyurl.com/SCARFLPS2013.
- 12. Doornbos, E, Bruinsma, S, Koppenwallner, G, Fritsche, B, IJssel, J, Visser, P, **de Teixeira da Encarnação**, t., Kern, M, (2012). "Thermospheric density and wind from GOCE thruster activation and accelerometer data". In: *EGU General Assembly Conference Abstracts*. Vol. 14, p. 5634.
- 13. Gunter, B., **de Teixeira da Encarnação**, t., Ditmar, P, Klees, R, (2012). "Potential contributions to space geodesy from the IridiumNEXT constellation". In: *AGU Fall Meeting Abstracts*.
- 14. Gunter, B, **de Teixeira da Encarnação**, t., Ditmar, P, Klees, R, (2011). "An investigation into new advances in geodesy utilizing future satellite constellations". In: AGU Fall Meeting Abstracts.
- 15. Ditmar, P., Hashemi Farahani, H., **de Teixeira da Encarnação**, t., (2010). "Mitigation of along-track artifacts in unconstrained mass transport models based on GRACE satellite data". In: *EGU General Assembly Conference Abstracts*. Vol. 12, p. 10393.
- Gunter, B, de Teixeira da Encarnação, t., Ditmar, P, Klees, R, (2010). "Using existing satellite constellations to complement current and future dedicated gravity field missions". In: AGU Fall Meeting Abstracts.
- 17. Hashemi Farahani, H, Ditmar, P, **de Teixeira da Encarnação**, t., Liu, X, (2010). "Contribution of an accurate determination of GRACE satellite orbits to precise mass transport modeling". In: *EGU General Assembly Conference Abstracts*. Vol. 12, p. 10867.

Miscellaneous Contributions

Sneeuw, N., Iran-Pour, S., Reubelt, T., Sneeuw, N., Daras, I., Murböck, M., Gruber, T., Pail, R., Weigelt, M., Dam, T., Visser, P., Teixeira Encarnação, J., IJssel, J., Tonetti, S., Cornara, S., Cesare, S., (2015).
 Assessment of Satellite Constellations for Monitoring the Variations in Earth Gravity Field "SC4MGV".
 Tech. rep. European Space Agency. URL: https://tinyurl.com/SC4MGV.

2. Anselmi, A., Cesare, S., Visser, P., Van Dam, T., Sneeuw, N., Gruber, T., Altes, B., Christophe, B., Cossu, F., Ditmar, P., Murboeck, M., Parisch, M., Renard, M., Reubelt, T., Sechi, G., **Teixeira Encarnação**, **J**, (2010). Assessment of a next Generation Gravity Mission for Monitoring the Variations of Earth's Gravity Field. Tech. rep. Thales Alenia Space report SD-RP-AI-0668: ESA Contract No. 22643/09/NL/AF. URL: https://tinyurl.com/ANGMMVEGF.