

List of Publications

PUBLICATION HIGHLIGHTS

Overview

H-index: 29, i10-index: 46 , citations: 5322 (Source: Google Scholar¹), full list in below

Publication type	Total	First author	Supervisor	Award/Nominee
Journal	14	3	2	3
Conference	24	10	8	6
Encyclopedia Entry/Book/Book Chapter	5	3	0	0
Poster/Demo/Workshop/Technical report	15	4	2	2
Total	58	21	12	11

Table 1: Publications per type

PUBLICATION LIST BY TYPES

Journal Publications

1. TUÁN, A. L., HAYES, C., HAUSWIRTH, M., AND LE-PHUOC, D. Pushing the scalability of RDF engines on iot edge devices. *Sensors* 20, 10 (2020), 2788
2. KOOPMANN, P., MAILIS, T., AND LE-PHUOC, D. Special issue on high-level declarative stream processing. *Open J. Databases* 6, 1 (2019), 1–4
3. LIU, Q., WYLOT, M., LE-PHUOC, D., AND HAUSWIRTH, M. Provenance management over linked data streams. *Open J. Databases* 6, 1 (2019), 5–20
4. HALLER, A., JANOWICZ, K., COX, S. J. D., LEFRANÇOIS, M., TAYLOR, K., LE-PHUOC, D., LIEBERMAN, J., GARCÍA-CASTRO, R., ATKINSON, R., AND STADLER, C. The modular SSN ontology: A joint W3C and OGC standard specifying the semantics of sensors, observations, sampling, and actuation. *Semantic Web* 10, 1 (2019), 9–32. *Citations: 243.*
5. VAN DEN BRINK, L., BARNAGHI, P. M., TANDY, J., ATEMEZING, G., ATKINSON, R., COCHRANE, B., FATHY, Y., GARCÍA-CASTRO, R., HALLER, A., HARTH, A., JANOWICZ, K., KOLOZALI, S., VAN LEEUWEN, B., LEFRANÇOIS, M., LIEBERMAN, J., PEREGO, A., LE-PHUOC, D., ROBERTS, B., TAYLOR, K., AND TRONCY, R. Best practices for publishing, retrieving, and using spatial data on the web. *Semantic Web* 10, 1 (2019), 95–114
6. DELL’AGLIO, D., EITER, T., HEINTZ, F., AND LE-PHUOC, D. Special issue on stream reasoning. *Semantic Web* 10, 3 (2019), 453–455

¹<https://scholar.google.de/citations?user=7-k4HC0AAAAJ>

7. QUOC, H. N. M., SERRANO, M., NGUYEN, H. M., BRESLIN, J. G., AND LE-PHUOC, D. EAGLE - A scalable query processing engine for linked sensor data. *Sensors* 19, 20 (2019), 4362
8. JANOWICZ, K., HALLER, A., COX, S. J. D., LE-PHUOC, D., AND LEFRANÇOIS, M. SOSA: A lightweight ontology for sensors, observations, samples, and actuators. *J. Web Semant.* 56 (2019), 1–10. *Citations: 341.*
9. BRÖRING, A., SCHMID, S., SCHINDHELM, C. K., KHELIL, A., KÄBISCH, S., KRAMER, D., LE-PHUOC, D., MITIC, J., ANICIC, D., AND TENIENTE, E. Enabling iot ecosystems through platform interoperability. *IEEE Softw.* 34, 1 (2017), 54–61. *Citations: 327.*
10. LE-PHUOC, D. Operator-aware approach for boosting performance in RDF stream processing. *J. Web Semant.* 42 (2017), 38–54
11. LE-PHUOC, D., QUOC, H. N. M., NGO, Q. H., NHAT, T. T., AND HAUSWIRTH, M. The graph of things: A step towards the live knowledge graph of connected things. *J. Web Semant.* 37–38 (2016), 25–35 🏆 [Second Prize at Semantic Web Challenge 2014] and 🏆 [Second Prize at European Linked Data Award , SEMANTICS 2015]. *Citations: 84.*
12. SERRANO, M., QUOC, H. N. M., LE-PHUOC, D., HAUSWIRTH, M., SOLDATOS, J., KEFALAKIS, N., JAYARAMAN, P. P., AND ZASLAVSKY, A. B. Defining the stack for service delivery models and interoperability in the internet of things: A practical case with openiot-vdk. *IEEE J. Sel. Areas Commun.* 33, 4 (2015), 676–689
13. LE-PHUOC, D., NGUYEN-MAU, H. Q., PARREIRA, J. X., AND HAUSWIRTH, M. A middleware framework for scalable management of linked streams. *J. Web Semant.* 16 (2012), 42–51 🏆 [Honorable Mention at Semantic Web Challenge 2011] .*Citations: 147.*
14. COMPTON, M., BARNAGHI, P. M., BERMUDEZ, L., GARCIA-CASTRO, R., CORCHO, Ó., COX, S. J. D., GRAYBEAL, J., HAUSWIRTH, M., HENSON, C. A., HERZOG, A., HUANG, V. A., JANOWICZ, K., KELSEY, W. D., LE-PHUOC, D., LEFORT, L., LEGGIERI, M., NEUHAUS, H., NIKOLOV, A., PAGE, K. R., PASSANT, A., SHETH, A. P., AND TAYLOR, K. The SSN ontology of the W3C semantic sensor network incubator group. *J. Web Semant.* 17 (2012), 25–32. *Citations: 1691.*

Conferences

1. SCHNEIDER, P., ALVAREZ-COELLO, D., LE-TUAN, A., DUC, M. N., AND LE-PHUOC, D. Stream reasoning playground. In *The Semantic Web - 19th International Conference, ESWC 2022, Hersonissos, Crete, Greece, May 29 - June 2, 2022, Proceedings* (2022), vol. 13261 of *Lecture Notes in Computer Science*, Springer, pp. 406–424
2. LE-PHUOC, D., EITER, T., AND TUÁN, A. L. A scalable reasoning and learning approach for neural-symbolic stream fusion. In *Thirty-Fifth AAAI Conference on Artificial Intelligence, AAAI 2021* (2021), AAAI Press, pp. 4996–5005
3. DUC, M. N., TUÁN, A. L., HAUSWIRTH, M., AND LE-PHUOC, D. Towards autonomous semantic stream fusion for distributed video streams. In *15th ACM International Conference on Distributed and Event-based Systems, DEBS 2021, Virtual Event, Italy, June 28 - July 2, 2021* (2021), ACM, pp. 172–175

4. TUÁN, A. L., TRAN, T., NGUYEN, D. M., YUAN, J., HAUSWIRTH, M., AND LE-PHUOC, D. Visionkg: Towards A unified vision knowledge graph. In *Proceedings of the ISWC 2021 Posters, Demos and Industry Tracks: From Novel Ideas to Industrial Practice co-located with 20th International Semantic Web Conference (ISWC 2021), Virtual Conference, October 24-28, 2021* (2021), vol. 2980 of *CEUR Workshop Proceedings*, CEUR-WS.org
5. TUÁN, A. L., HINGU, D., HAUSWIRTH, M., AND LE-PHUOC, D. Incorporating blockchain into RDF store at the lightweight edge devices. In *Semantic Systems. The Power of AI and Knowledge Graphs - 15th International Conference, SEMANTiCS 2019, Karlsruhe, Germany, September 9-12, 2019, Proceedings* (2019), vol. 11702 of *Lecture Notes in Computer Science*, Springer, pp. 369–375. 🏆 [Best Paper Nomination]
6. DUC, M. N., TUÁN, A. L., CALBIMONTE, J., HAUSWIRTH, M., AND LE-PHUOC, D. Autonomous RDF stream processing for iot edge devices. In *Semantic Technology - 9th Joint International Conference, JIST 2019, Hangzhou, China, November 25-27, 2019, Proceedings* (2019), vol. 12032 of *Lecture Notes in Computer Science*, Springer, pp. 304–319. 🏆 [Best Paper Runner-up Award]
7. QUOC, H. N. M., SERRANO, M., BRESLIN, J. G., AND LE-PHUOC, D. A learning approach for query planning on spatio-temporal iot data. In *Proceedings of the 8th International Conference on the Internet of Things, IOT 2018, Santa Barbara, CA, USA, October 15-18, 2018* (2018), ACM, pp. 1:1–1:8 🏆 [Best Paper Award]
8. TUÁN, A. L., HAYES, C., WYLOT, M., AND LE-PHUOC, D. Rdf4led: an RDF engine for lightweight edge devices. In *Proceedings of the 8th International Conference on the Internet of Things, IOT 2018, Santa Barbara, CA, USA, October 15-18, 2018* (2018), ACM, pp. 2:1–2:8
9. TOMMASINI, R., SEDIRA, Y. A., DELL’AGLIO, D., BALDUINI, M., ALI, M. I., LE-PHUOC, D., VALLE, E. D., AND CALBIMONTE, J. Vocals: Vocabulary and catalog of linked streams. In *The Semantic Web - ISWC 2018 - 17th International Semantic Web Conference, Monterey, CA, USA, October 8-12, 2018, Proceedings, Part II* (2018), vol. 11137 of *Lecture Notes in Computer Science*, Springer, pp. 256–272
10. DELL’AGLIO, D., DAO-TRAN, M., CALBIMONTE, J., LE-PHUOC, D., AND VALLE, E. D. A query model to capture event pattern matching in RDF stream processing query languages. In *Knowledge Engineering and Knowledge Management - 20th International Conference, EKAW 2016, Bologna, Italy, November 19-23, 2016, Proceedings* (2016), vol. 10024 of *Lecture Notes in Computer Science*, pp. 145–162
11. LE-PHUOC, D., DAO-TRAN, M., TUÁN, A. L., DUC, M. N., AND HAUSWIRTH, M. RDF stream processing with CQELS framework for real-time analysis. In *Proceedings of the 9th ACM International Conference on Distributed Event-Based Systems, DEBS '15, Oslo, Norway, June 29 - July 3, 2015* (2015), ACM, pp. 285–292
12. QUOC, H. N. M., AND LE-PHUOC, D. An elastic and scalable spatiotemporal query processing for linked sensor data. In *Proceedings of the 11th International Conference on Semantic Systems, SEMANTiCS 2015, Vienna, Austria, September 15-17, 2015* (2015), ACM, pp. 17–24
13. HROMIC, H., LE-PHUOC, D., SERRANO, M., ANTONIC, A., ZARKO, I. P., HAYES, C., AND DECKER, S. Real time analysis of sensor data for the internet of things by means of clustering

- and event processing. In *2015 IEEE International Conference on Communications, ICC 2015, London, United Kingdom, June 8-12, 2015* (2015), IEEE, pp. 685–691
14. LE-PHUOC, D., TUÁN, A. L., SCHIELE, G., AND HAUSWIRTH, M. Querying heterogeneous personal information on the go. In *The Semantic Web - ISWC 2014 - 13th International Semantic Web Conference, Riva del Garda, Italy, October 19-23, 2014. Proceedings, Part II* (2014), vol. 8797 of *Lecture Notes in Computer Science*, Springer, pp. 454–469
 15. SERRANO, M., LE-PHUOC, D., ZAREMBA, M., GALIS, A., BHIRI, S., AND HAUSWIRTH, M. Resource optimisation in iot cloud systems by using matchmaking and self-management principles. In *The Future Internet - Future Internet Assembly 2013: Validated Results and New Horizons* (2013), vol. 7858 of *Lecture Notes in Computer Science*, Springer, pp. 127–140
 16. LE-PHUOC, D., QUOC, H. N. M., VAN, C. L., AND HAUSWIRTH, M. Elastic and scalable processing of linked stream data in the cloud. In *The Semantic Web - ISWC 2013 - 12th International Semantic Web Conference, Sydney, NSW, Australia, October 21-25, 2013, Proceedings, Part I* (2013), vol. 8218 of *Lecture Notes in Computer Science*, Springer, pp. 280–297 *Citations: 91.*
 17. LE-PHUOC, D., DAO-TRAN, M., PHAM, M., BONCZ, P. A., EITER, T., AND FINK, M. Linked stream data processing engines: Facts and figures. In *The Semantic Web - ISWC 2012 - 11th International Semantic Web Conference, Boston, MA, USA, November 11-15, 2012, Proceedings, Part II* (2012), vol. 7650 of *Lecture Notes in Computer Science*, Springer, pp. 300–312. *Citations: 150.*
 18. APOLINARSKI, W., HANDTE, M., LE-PHUOC, D., AND MARRÓN, P. J. A peer-based approach to privacy-preserving context management. In *Modeling and Using Context - 7th International and Interdisciplinary Conference, CONTEXT 2011, Karlsruhe, Germany, September 26-30, 2011. Proceedings* (2011), vol. 6967 of *Lecture Notes in Computer Science*, Springer, pp. 18–25
 19. LE-PHUOC, D., DAO-TRAN, M., PARREIRA, J. X., AND HAUSWIRTH, M. A native and adaptive approach for unified processing of linked streams and linked data. In *The Semantic Web - ISWC 2011 - 10th International Semantic Web Conference, Bonn, Germany, October 23-27, 2011, Proceedings, Part I* (2011), vol. 7031 of *Lecture Notes in Computer Science*, Springer, pp. 370–388 🏆 **[Honorable Mention for SWSA Ten-Year Award]** *Citations: 534*
 20. LE-PHUOC, D., PARREIRA, J. X., HAUSENBLAS, M., HAN, Y., AND HAUSWIRTH, M. Live linked open sensor database. In *Proceedings the 6th International Conference on Semantic Systems, I-SEMANTICS 2010, Graz, Austria, September 1-3, 2010* (2010), ACM International Conference Proceeding Series, ACM
 21. LE-PHUOC, D. Sensormasher - publishing and building mashup of sensor data. In *5th International Conference on Semantic Systems, Graz, Austria, September 2-4, 2009. Proceedings* (2009), Verlag der Technischen Universität Graz
 22. LE-PHUOC, D., POLLERES, A., HAUSWIRTH, M., TUMMARELLO, G., AND MORBIDONI, C. Rapid prototyping of semantic mash-ups through semantic web pipes. In *Proceedings of the 18th International Conference on World Wide Web, WWW 2009, Madrid, Spain, April 20-24, 2009* (2009), ACM, pp. 581–590. 🏆 **[Honourable mention at Linked Data Triplication Challenge]** *Citations: 178.*

23. MORBIDONI, C., LE-PHUOC, D., POLLERES, A., SAMWALD, M., AND TUMMARELLO, G. Previewing semantic web pipes. In *The Semantic Web: Research and Applications, 5th European Semantic Web Conference, ESWC 2008, Tenerife, Canary Islands, Spain, June 1-5, 2008, Proceedings* (2008), vol. 5021 of *Lecture Notes in Computer Science*, Springer, pp. 843–848
24. SHU, L., ZHOU, Z., HAUSWIRTH, M., LE-PHUOC, D., YU, P., AND ZHANG, L. Transmitting streaming data in wireless multimedia sensor networks with holes. In *Proceedings of the 6th International Conference on Mobile and Ubiquitous Multimedia, MUM 2007, Oulu, Finland, December 12-14, 2007* (2007), vol. 284 of *ACM International Conference Proceeding Series*, ACM, pp. 24–33


Encyclopedia Entry/Book/Book Chapter

1. LE-PHUOC, D., AND HAUSWIRTH, M. *Semantic Stream Processing and Reasoning*. Springer International Publishing, Cham, 2020, pp. 1–10
2. LE-PHUOC, D., AND MANFRED-HAUSWIRTH. Semantic stream processing. In *Encyclopedia of Big Data Technologies*. Springer, 2019
3. HAUSWIRTH, M., LE-PHUOC, D., AND PARREIRA, J. X. Semantic streams. In *Encyclopedia of Database Systems, Second Edition*. Springer, 2018
4. SAKR, S., WYLOT, M., MUTHARAJU, R., LE-PHUOC, D., AND FUNDULAKI, I. *Linked Data - Storing, Querying, and Reasoning*. Springer, 2018
5. LE-PHUOC, D., PARREIRA, J. X., AND HAUSWIRTH, M. Linked stream data processing. In *Reasoning Web. Semantic Technologies for Advanced Query Answering - 8th International Summer School 2012, Vienna, Austria, September 3-8, 2012. Proceedings* (2012), vol. 7487 of *Lecture Notes in Computer Science*, Springer, pp. 245–289

Workshop/Poster/Demo/Technical Report

1. DUONG-TRUNG, N., BORN, S., MADHUSUDHANAN, K., SCHOLZ, R., BURCHERT, J., LE-PHUOC, D., AND SCHMIDT-THIEME, L. Put attention to temporal saliency patterns of multi-horizon time series. *CoRR abs/2212.07771* (2022)
2. TRAN, T., LE-TUAN, A., DUC, M. N., YUAN, J., AND LE-PHUOC, D. Fantastic data and how to query them. *Data-Centric AI Workshop, NeurISP 2021 abs/2201.05026* (2022)
3. DUC, M. N., LE-TUAN, A., HAUSWIRTH, M., BOWDEN, D., AND LE-PHUOC, D. Semrob: Towards semantic stream reasoning for robotic operating systems. *Stream Reasoning Workshop 2021, Milan abs/2201.11625* (2022)
4. LE-TUAN, A., DUC, M. N., LE, C., TRAN, T., HAUSWIRTH, M., EITER, T., AND LE-PHUOC, D. CQELS 2.0: Towards A unified framework for semantic stream fusion. *Stream Reasoning Workshop 2021, Milan abs/2202.13958* (2022)
5. LE-PHUOC, D., AND EITER, T. An adaptive semantic stream reasoning framework for deep neural networks. In *Proceedings of the CIKM 2020 Workshops co-located with 29th ACM International Conference on Information and Knowledge Management (CIKM 2020), Galway, Ireland, October 19-23, 2020* (2020), vol. 2699 of *CEUR Workshop Proceedings*, CEUR-WS.org

6. TAYLOR, K., HALLER, A., LEFRANÇOIS, M., COX, S. J. D., JANOWICZ, K., GARCIA-CASTRO, R., LE-PHUOC, D., LIEBERMAN, J., ATKINSON, R., AND STADLER, C. The semantic sensor network ontology, revamped. In *Proceedings of the Journal Track co-located with the 18th International Semantic Web Conference (ISWC 2019), Auckland, New Zealand, October 26, 2019* (2019), vol. 2576 of *CEUR Workshop Proceedings*, CEUR-WS.org
7. TOMMASINI, R., SEDIRA, Y. A., DELL'AGLIO, D., BALDUINI, M., ALI, M. I., LE-PHUOC, D., VALLE, E. D., AND CALBIMONTE, J. Vocals: Describing streams on the web. In *Proceedings of the ISWC 2018 Posters & Demonstrations, Industry and Blue Sky Ideas Tracks co-located with 17th International Semantic Web Conference (ISWC 2018), Monterey, USA, October 8th - to - 12th, 2018* (2018), vol. 2180 of *CEUR Workshop Proceedings*, CEUR-WS.org 🏆 **[Best Poster Award at ISWC 2018]**
8. LE-PHUOC, D. Adaptive optimisation for continuous multi-way joins over RDF streams. In *Companion of the The Web Conference 2018 on The Web Conference 2018, WWW 2018, Lyon, France, April 23-27, 2018* (2018), ACM, pp. 1857–1865
9. JANOWICZ, K., HALLER, A., COX, S. J. D., LE-PHUOC, D., AND LEFRANÇOIS, M. SOSA: A lightweight ontology for sensors, observations, samples, and actuators. *CoRR abs/1805.09979* (2018)
10. DELL'AGLIO, D., LE-PHUOC, D., TUÁN, A. L., ALI, M. I., AND CALBIMONTE, J. On a web of data streams. In *Proceedings of the Workshop on Decentralizing the Semantic Web 2017 co-located with 16th International Semantic Web Conference (ISWC 2017)* (2017), vol. 1934 of *CEUR Workshop Proceedings*, CEUR-WS.org
11. *Joint Proceedings of the 2nd RDF Stream Processing (RSP 2017) and the Querying the Web of Data (QuWeDa 2017) Workshops co-located with 14th ESWC 2017 (ESWC 2017), Portoroz, Slovenia, May 28th - to - 29th, 2017* (2017), vol. 1870 of *CEUR Workshop Proceedings*, CEUR-WS.org
12. DAO-TRAN, M., AND LE-PHUOC, D. Towards enriching CQELS with complex event processing and path navigation. In *Proceedings of the 1st Workshop on High-Level Declarative Stream Processing co-located with the 38th German AI conference (KI 2015), Dresden, Germany, September 22, 2015* (2015), vol. 1447 of *CEUR Workshop Proceedings*, CEUR-WS.org, pp. 2–14
13. SANIAT, M. R., QUOC, H. N. M., VAN, H. L., LE-PHUOC, D., SERRANO, M., AND HAUSWIRTH, M. Autonomic frameworks deployment using configuration and service delivery models for the internet of things. In *Interoperability and Open-Source Solutions for the Internet of Things - International Workshop, FP7 OpenIoT Project, Held in Conjunction with SoftCOM 2014, Split, Croatia, September 18, 2014. Invited Papers* (2014), vol. 9001 of *Lecture Notes in Computer Science*, Springer, pp. 89–102
14. LE-PHUOC, D., QUOC, H. N. M., PARREIRA, J. X., MANFRED, AND HAUSWIRTH. The linked sensor middleware — connecting the real world and the semantic web *Citations: 125*.
15. LE-PHUOC, D., PARREIRA, J. X., AND HAUSWIRTH, M. Challenges in linked stream data processing: A position paper. In *Proceedings of the 3rd International Workshop on Semantic Sensor Networks, SSN 2010, Shanghai, China, November 7, 2010* (2010), vol. 668 of *CEUR Workshop Proceedings*, CEUR-WS.org

16. LE-PHUOC, D., PARREIRA, J. X., REYNOLDS, V., AND HAUSWIRTH, M. RDF on the go: RDF storage and query processor for mobile devices. In *Proceedings of the ISWC 2010 Posters & Demonstrations Track: Collected Abstracts, Shanghai, China, November 9, 2010* (2010), vol. 658 of *CEUR Workshop Proceedings*, CEUR-WS.org.  **[Best Demo Award at ISWC 2010]**. Citations: **66**.
17. LE-PHUOC, D., AND HAUSWIRTH, M. Linked open data in sensor data mashups,. In *Proceedings of the 2nd International Workshop on Semantic Sensor Networks (SSN09), collocated with the 8th International Semantic Web Conference (ISWC-2009), Washington DC, USA, October 26, 2009* (2009), vol. 522 of *CEUR Workshop Proceedings*, CEUR-WS.org, pp. 1–16. Citations: **117**.