

Publications

The papers listed here represent the range of research activities I have been involved in over the past fifteen years or so. Most of them are related to the domain of geographical information science and systems, a pluri-disciplinary domain per nature. This is reflected by the diversity of areas covered, and colleagues involved with me in these paper authorings. The papers are classified per area of research despite some intersections. If you have some problems to download them when available on-line, or if you want some reprints of the ones not available on-line, please send me an email at claramunt@ecole-navale.fr and I'll be pleased to send a copy by regular Email. Most of my papers are also listed in the DBLP web site and available on my Research Gate page, citations to my work are available on Google scholar.

Temporal GIS

Spatial and Semantic GIS WEB and wireless GIS GIS, simulation and transportation GIS Urban GIS and space syntax
Environmental and landscape GIS

Temporal GIS

- C. Claramunt, C. Ray, E. Camossi, A.-L. Jousset, M. Hadzagic, G. L. Andrienko, N. V. Andrienko, Y. Theodoridis, G. A. Vouros, L. Salmon, 2017, Maritime data integration and analysis: recent progress and research challenges, *EDBT 2017*: 192-197.
- Mackenzie, K, Siabato, W., Reitsma, F. and Claramunt, C., 2017, Spatio-temporal visualisation of data exploration of traditional ecological knowledge/indigenous knowledge, *Conservation and Society*, 15(1), 41-58.
- Wu, J., Claramunt, C., Belouaer, L. and Deng, M., 2015, A qualitative modelling approach for the representation of trajectories: application to the analysis of flight patterns, *Annals of GIS*, Taylor & Francis, 21(4): 275-285.
- Claramunt, C. and Stewart, K., 2015, Special Issue on spatio-temporal theories and models for environmental, urban and social sciences: where do we stand? *Spatial Computation and Cognition*, Taylor & Francis, 15(2), 61-67.
- Zheni, D., Frihida, A., Claramunt, C. and Ben Ghézala, H. H., 2015, A semantic-based data model for the manipulation of trajectories: Application to urban transportation. In *Proceedings of the 14th International Symposium on Web and Wireless GIS (W2GIS 2015)*, Springer LNCS, pp. 124-142.
- Wu, J., Claramunt, C. and Deng, M., 2014, Modelling movement patterns using topological relations between a directed line and a region. In *Proceedings of the 5th ACM SIGSPATIAL International Workshop on GeoStreaming (IWGS' 2014)*, Zhang, S., Basalamah, A. and Hendawi, A. (Eds.). ACM, New York, USA, 10p.
- Xiong, Je., Xiong, Jo. and Claramunt, C., 2014, A spatial entropy-based approach to improve mobile risk-based authentication. In *Proceedings of the 1st ACM SIGSPATIAL International Workshop on Privacy in Geographic Information Collection and Analysis (GeoPrivacy '14)*, Selected as Best Paper, C. Kessler, G. D. McKenzie, and L. Kulik (Eds.). ACM, New York, NY, USA, 9p.
- Wu, J., Claramunt, C. and Deng, M., 2014, Toward a qualitative representation of movement, In *Proceedings of the 8th International Workshop on Semantic and Conceptual Issues in GIS (SeCoGIS14)*, ER Workshops, Atlanta, GA, USA, October 27-29, Springer LNCS, pp. 191-200.
- Siabato, W., Claramunt, C., M. A. Manso-Callejo and Bernabé-Poveda M.-A., 2015, TimeBibliography: A dynamic and online bibliography on temporal GIS, *Transactions in GIS*, John Wiley & Sons Ltd, Vol.18 No.6, p.799-816.
- Leibovici, D., Claramunt, C., Le Guyader, D. and Brosset, D., 2014, Local and global spatio-temporal entropy indices based on distance-ratios and co-occurrence distributions, *International Journal of Geographical Information Science*, Taylor & Francis, 28(5), 1061-1084.
- Domingo, M., Thibaud, R and Claramunt, C., 2013, A Graph-based model for the representation of land-spaces, 20th International Conference on Advances in GIS (ACM SIG'SPATIAL 2013), ACM Press, Orlando, November 5-8, pp. 526-529.
- Del Mondo, G., Rodriguez, M. A., Claramunt, C., Bravo, L. and Thibaud, R., 2013, Modelling Consistency of Spatio-temporal Graphs, *Data & Knowledge Engineering*, Elsevier, 84(1), 59-80.
- Claramunt, C., Towards a spatio-temporal form of entropy, 2012, S. Castano et al.(Eds.): *ER Workshops 2012*, LNCS 7518, pp. 221-230. Springer, Heidelberg.
- Stell, J. G., Del Mondo, G., Thibaud, R. and Claramunt, C. , 2011, Spatio-temporal evolution as bigraph dynamics, in *Conference on Spatial Information Theory (COSIT '11)*, M. Egenhofer et al. (Eds.), Belfast, Maine, USA, September, Springer LNCS 6899, pp.148-167 [Best paper award].
- Del Mondo, G., Stell, J. G., Claramunt, C. and Thibaud, R., 2010, A graph model for spatio-temporal evolution, *Journal of Universal Computer Science*, Special issue on Advances on Spatial and Temporal Reasoning, 16(11), 1452-1477.
- Zheni, D., Frihida, A., Ben Ghezala, H. and Claramunt, C., 2009, A semantic approach for the modeling of trajectories in space and time, in 3rd International Workshop on Semantics and Conceptual Issues in GIS (SeCoGIS 2009), ER Workshops, C. A. Heuser and G. Pernul (eds.), LNCS 5833, Springer, pp. 347-356.
- Vandersmissen, M. H., Seguin, A. M., Thériault, M. and Claramunt, C., 2009, Modelling propensity to move after job change using event-history analysis and temporal GIS, *Geographical Systems*, Springer, Vol. 11, pp. 37-65.
- Noyon, V., Claramunt, C., and Devogele, D., 2007, A relative representation of trajectories in geographical spaces, *Geoinformatica*, Springer, Vol. 4, n. 11, pp. 479-496.
- Noyon, V., Devogele, T. and Claramunt, C., 2005, A formal model for representing point trajectories in two-dimensional spaces, in *Conference on Conceptual Modelling and GIS (COMOGIS'05)*, Lecture Notes in Computer Science, Springer, October 2005, pp.208-217.
- Noyon, V., Devogele, T. and Claramunt, C., 2005, A relative modelling approach for modelling trajectories, in 4th ISPRS Workshop on Dynamic and Multi-dimensional GIS, University of Glamorgan, Archives of ISPRS, pp.139-143
- Sriti, M., Thibaud, R and Claramunt, C., 2005, A fuzzy identity-based temporal GIS for the analysis of geomorphometry changes, *Journal of Data Semantics*, Springer Verlag, Special issue on spatial data semantics, 3(1), 81-99.
- Huang, B. and Claramunt, C., 2005, Spatiotemporal Data Model and Query Language for Tracking Land Use Change, *Transportation Research Record*, pp 107-113.
- Sriti, M., Thibaud, R and Claramunt, C., 2005, A network-based model for representing the evolution of spatial structures, in 4th ISPRS Workshop on Dynamic and Multi-dimensional GIS, University of Glamorgan, Archives of ISPRS, pp.150-155.
- Sriti, M., Thibaud, R and Claramunt, C., 2004, A three-dimensional temporal GIS for the analysis of morphometric changes, in 12th International

Conference on Geoinformatics - Geospatial Information Research, S. A. Brandt (ed.), Gavle University Press, Sweden, 7-9 June, pp. 195-202.

- Y. Yang and C. Claramunt, 2003, A process-based multi-representation of gradual changes, *Journal of Geographical Decision Analysis*, 7 (1), 1-13.
- Béra, R. and Claramunt, C., 2003, Relative adjacencies in spatial pseudo-partitions, in *Conference on Spatial Information Theory (COSIT '03)*, W. Kuhn, M. Worboys, and S. Timpf (eds.), *Lecture Notes in Computer Science 2825*, Springer, Ittingen, Switzerland, pp.218-234.
- Thériault, M., Claramunt, C., Seguin, A.-M. and Villeneuve, P., 2002, Temporal GIS and statistical modelling of personal lifelines, in *9th Spatial Data Handling Symposium*, 9-12 July, Ottawa, D. Richardson and P. van Oosterom (eds.), Springer-Verlag, 9-12 July, Ottawa, pp. 433-450.
- Huang, B. and Claramunt, C., 2002, STOQL: An ODMG-based spatio-temporal object model and query language, *9th Spatial Data Handling symposium*, 9-12 July, Ottawa, D. Richardson and P. van Oosterom (eds.), Springer-Verlag, 9-12 July, Ottawa, pp. 225-237.
- Badariotti, D., Claramunt, C. and Devys, E. 2002, Analyse de la dynamique et des indices d'évolution des paysages selon VMAP1, *Revue Internationale de Géomatique*, 12(2), pp. 187-214.
- Claramunt, C. and Jiang, B., 2001, An integrated representation of spatial and temporal relationships, *Geographical Systems*, 3(4), Springer-Verlag, pp. 154-159.
- Spery, L., Claramunt, C. and Libourel, T., 2001, A spatio-temporal model for lineage metadata, *Geoinformatica*, 5(1), Kluwer Academic, pp. 51-70.
- Claramunt, C., 2000, Extending Ladkin's algebra on non-convex intervals towards an algebra on union-of regions, in *8th ACM GIS International Symposium*, Washington D. C., K.-J. Li, K. Makki, N. Pissinou and S. Ravada (eds.), ACM Press, pp. 9-14.
- Claramunt, C. and Jiang, B., 2000, Hierarchical reasoning in space and time, in *9th International Symposium on Spatial Data Handling (SDH)*, 10-12 August 2000, Beijing, P.R.China, P. Forer, A. G. O. Yeh and J. He (eds.), pp. 3a. 41-51.
- Claramunt, C. and Parent, C., 2000, Modelling concepts for the representation of evolution constraints, in *International Workshop on Emerging Technologies for Geo-Based Applications*, May 22-25, Ascona, Switzerland, pp. 169-184 (selected for a special issue of *Computers Environment and Urban Systems*).
- Claramunt, C. and Jiang, B., 2000, A representation of relationships in temporal spaces, in *Innovations in GIS VII: GeoComputation*, Ch. 4, P. Atkinson and D. Martin (eds.), Taylor and Francis, pp. 41-53.
- Thériault, M., Claramunt, C. and Villeneuve, P., 1999, A spatio-temporal taxonomy for the representation of spatial set behaviours, in *Spatio-temporal Database Management*, M. Böhlen, C. Jensen, and M. Scholl (eds.), Springer-Verlag, LNCS 1678, pp. 1-19.
- Spery, L., Claramunt, C. and Libourel, T., 1999, A lineage metadata model for the temporal management of a cadastre application, in *International Workshop on Spatio-temporal Models and Language SDTDML'99*, A. M. Tjoa, A. Cammelli and R. R. Wagner (eds.), The IEEE Computer Society, Florence, pp. 466-474.
- Claramunt, C., Parent, C., Spaccapietra, S. and Thériault, M., 1999, Database modelling for environmental and land use changes, Chapter 10 in *Geographical Information and Planning: European Perspectives*, Stan Geertman, Stan Openshaw and John Stillwell eds., Springer-Verlag, pp. 181-202.
- Claramunt, C. and Bai, L., 1999, A multi-scale approach to the propagation of temporal constraints in GIS, *Journal of Geographic Information and Decision Analysis*, 3 (1), pp. 9-20.
- Etches, A., Claramunt, C., Bargiela, A. and Kosonen, I., 1999, An interoperable TGIS model for traffic systems, in *Innovations in GIS 6, Integrating Information Infrastructures with GI Technology*, Gittings, B. (ed.), Taylor & Francis, pp. 217-228.
- Thériault, M. and Claramunt, C., 1999, La modélisation du temps et des processus dans les SIG: Un moyen d'intégration pour la recherche interdisciplinaire, *Revue Internationale de Géomatique*, Ed. Hermes, Paris, France, 9(1), pp. 67-103.
- Claramunt, C. and Bai, L., 1998, A multi-scale approach to the propagation of temporal constraints in GIS, in *Xth European Symp. in Simulation Systems*, Nottingham, A. Bargiela and E. Kerckhoffs (eds.), pp. 391-398 (re-printed as a journal publication).
- Claramunt, C., Parent, C. and Thériault, M., 1997, Design patterns for spatio-temporal processes, in *Searching for Semantics: Data Mining, Reverse Engineering*, S. Spaccapietra and F. Maryanski eds., Chapman & Hall, pp. 415-428.
- Claramunt, C., Thériault, M. and Parent, C., 1997, A qualitative representation of evolving spatial entities in two-dimensional spaces, In *Innovations in GIS V*, Carver, S. Ed., Taylor & Francis, pp. 119-129.
- Claramunt, C. and Thériault, M., 1996, Toward semantics for modelling spatio-temporal processes within GIS, *Advances in GIS II*, Kraak, M. J. and Molenaar, M. eds, Taylor and Francis, Delft, the Netherlands, pp. 47-64.
- Claramunt, C. and Thériault, M., 1995, Managing Time in GIS: An event-oriented approach, *Recent Advances on Temporal Databases*, Clifford, J. and Tuzhilin, A. (eds.), Springer-Verlag, Zurich, Switzerland, pp. 23-42.
- Claramunt, C., de Sède, M.H., Prelaz-Droux, R. and Vidale, L., 1994, Sémantique et logique spatio-temporelles, *Revue Internationale de Géomatique*, Ed. Hermes, vol. 4, n. 2, Paris, France, pp. 165-180.
- Joerin, F. and Claramunt, C., 1994, Integrating the time component in a GIS: An application to assess flooding impacts on agriculture, *EGIS'94 European Conference and Exhibition on GIS*, Harts, J. J., Ottens, H. F. L. and Scholten, H. J. Eds, Paris, France, pp. 524-532.

Spatial and Semantic GIS

- Georis-Creuseveau, J., Claramunt, C. and Gourmelon, F., A modelling framework for the study of spatial data infrastructures applied to coastal management and planning, *International Journal of Geographical Information Science*, Taylor and Francis, to appear..
- Afyouni, I., Ray, C., Ilarri, S. and Claramunt, C., 2014, A PostgreSQL extension for continuous path and range queries in indoor mobile environments, *Special Issue on Information Management in Mobile Applications, Pervasive and Mobile Computing*, Elsevier, 15, 128-150.
- Afyouni, I., Ilarri, S., Ray, C. and Claramunt, C., 2013, Context-aware modelling of continuous location-dependent

- queries in indoor environments, *Journal of Ambient Intelligence and Smart Environments*, IOS Press, 5 (1) 65–88.
- . Afyouni, I., Ray, C., Ilarri, S. and Claramunt, C., 2012, Algorithms for continuous location-dependent and context aware queries in indoor environments, in *Proceedings of the 20th ACM SIGSPATIAL International Conference on Advances in GIS*, I. Cruz et al. (Eds.), ACM Press, pp. 329-338.
- . Afyouni, I., Ray, C. and Claramunt, C., 2012, Spatial models for context-aware indoor navigation systems: A survey, *Journal of Spatial Information Science (JOSIS)*, vol. 4, 85-123.
- . Li, X., Claramunt, C., Zhang, X. and Huang, Y., 2012, A fast and deterministic approach to a near optimal solution for the p-median problem, *International Journal of Operations Research and Information Systems*, IGI-Global Publishers, 3(3), 1-14.
- . Li, X., Xiao, N., Claramunt, C. and Lin, H., 2011, Initialization strategies to enhancing the performance of a genetic algorithm for the p-median problem, *Computers & Industrial Engineering*, Elsevier, 61(4), 1024-1034.
- . Mata, F., and Claramunt, C., 2011, GeoST: geographic, thematic and temporal information retrieval from heterogeneous Web data sources, in *10th International Symposium on Web and Wireless GIS (W2GIS 2010)*, K. Tanaka, P. Frohlich and K.-S. Kim (eds.), Springer LNCS 6574, Kyoto, Japan, March 3-4, pp. 5-20.
- . Afyouni, I., Ray, C. and Claramunt, C., 2010, A fine-grained context-dependent model for indoor spaces, In *Proceedings of the 2nd ACM SIGSPATIAL International Workshop on Indoor Spatial Awareness (ISA 2010)*, San Jose, CA, USA, November, pp. 33-38.
- . Kowalski, J. M., Claramunt, C., and Zucker, A., 2007, Thalassographie: Representing maritime spaces in ancient Greece, in *Conference on Spatial Information Theory (COSIT '07)*, Melbourne, Australia, S. Winter and B. Kuijpers (eds.), Springer, LNCS 4736, September 2007, pp. 47-60.
- . Li, X., Claramunt, C., Ray, C., and Lin, H., 2006, A semantic-based approach to the representation of network-constrained trajectory data, in *12th International Symposium on Spatial Data Handling*, Vienna, Austria. W. Kainz, A. Reidl, and G. Elmes (eds.), Springer, pp. 451-464.
- . Li, X. and Claramunt, C., 2006, A spatial-based decision tree for classification of geographical information, *Transactions in GIS*, 10(3), Blackwell Publishing, pp. 451-467.
- . Chevriaux, Y., Saux, E. and Claramunt, C., 2005, A landform-based approach for the representation of terrain silhouettes, in *13rd ACM Symposium on Geographical Information Systems*, ACM Press, C. Shahabi and O. Boucelma (eds.), November 2005, pp. 260-266.
- . Claramunt, C., 2005, A spatial form of diversity, in *Conference on Spatial Information Theory (COSIT '05)*, Ellicottville, NY, D. Mark and A. Cohn (eds.), Lecture Notes in Computer Science, Springer, September 2005, pp.218-231.
- . Bera, R. and Claramunt, C., 2004, Can relative adjacency contribute to space syntax in the search for a structural logic of the city ?, in *Third Conference on Geographic Information Science*, M. J. Egenhofer, C. Freksa and H. J. Miller (eds.), LNCS 3234, Springer-Verlag, pp. 38-50.
- . Yang, Y. and Claramunt, C., 2004, Collaborative spatial workflows: A tentative framework (position paper), in *International Conference on Geoinformatics & Geographical Systems Modeling and Fifth Beijing International Workshop in GIS*, Beijing, China, April 2-4, pp 246-254.
- . Claramunt, C. and Thériault, M., 2004, Fuzzy Semantics for direction relations between composite regions, *Information Science*, Volume 160, Issues 1-4, 73-90.
- . Béra, R. and Claramunt, C., 2003, Topology-based proximities in geographical spaces, *Geographical Systems*, Springer-Verlag, 5(4), pp. 353-379.
- . Claramunt, C. et Thériault, M., 2001, A UML-based modelling approach for analysing travel behaviour, in *4th European Simulation Symposium EUROSIM'2001*, Heeminck, A., Dekker L., de Swaan H., Smit, I. et Van Stun, T. (eds.), Delft University of Technology, June 2001.
- . Claramunt, C. and Mainguenaud, M., 1999, A revisited projection operator for the manipulation of networks within GIS, *Informatica*, special issue on spatial data management, F. E. Petry, M. A. Cobb and K. B. Shaw (eds.), 23(2), pp. 187-202.
- . Jiang, B. and Claramunt, C., 1999, A comparison study on space syntax as a computer representation of space, in *2nd International Symposium on Space Syntax*, Brasilia, 1, pp. 09.1 - 09.
- . Claramunt, C., Coulondre, S. and Libourel, T., 1997, Autour des méthodes orientées objet pour la conception de SIG, *Revue Internationale de Géomatique*, Ed. Hermes, Paris, France, Vol. 7 n. 3-4, pp. 233-257.
- . Claramunt, C. and Mainguenaud, M., 1996, Collages spatiaux d'espaces multidimensionnels pour la représentation de processus de navigation, *Revue Internationale de Géomatique*, Ed. Hermes, Paris, France, vol 6, n. 4, pp.327-348.
- . Claramunt, C. and Mainguenaud, M., 1996, A spatial data model for navigation knowledge, *Advances in GIS II*, Kraak, M. J. and Molenaar, M. eds, Taylor and Francis, Delft, the Netherlands, pp. 767-784.
- . Claramunt, C. and Mainguenaud, M., 1995, Spatial View: A dynamic and flexible vision of GIS database, in *DEXA International Conference and Workshop on Database and Expert System Applications*, Revell, N. and Min Tjoa, A. eds, Omnipress, London, UK, pp. 483-493.
- . Claramunt, C. and Mainguenaud, M., 1994, Identification of a definition formalism for a spatial view, *Advanced Geographic Data Modeling*, Molenaar, M. and de Hoop, S. Eds, Netherlands Geodetic Commission, Delft, The Netherlands, pp. 191-203.
- . Caron, C. and Claramunt, C., 1993, Integration of database innovations within GIS: towards user needs, *Conference Proceedings of GIS 93*, Birmingham, United Kingdom.
- Wakamiya, S., Belouaer, L., Brosset, D., Kawai, Y., Claramunt, C. and Sumiya, K., 2015, Exploring geographical crowd's emotions with Twitter. *The Database Society of Japan Journal*, 13 (1), pp.77-82.
- . Wakamiya, S., Belouaer, L., Brosset, D., Kawai, Y., Lee, R., Sumiya, K. and Claramunt, C., 2015, Measuring crowd mood in city space through Twitter. In *Proceedings of the 14th International Symposium on Web and Wireless GIS (W2GIS 2015)*, Springer LNCS, pp. 37-42.
- . Stojanovic, D., Barshan, B., Papadopoulous, A., Van de Weghe, N. and Claramunt, C., Positioning methods and technologies in pervasive computing, *Encyclopedia of Information Science and Technology*, Chapter 564, 3rd edition, IGI Global, 5713-5722.
- . Mata, F. and Claramunt, C., 2014, A social navigation guide using augmented reality. In *21th International Conference on Advances in GIS (ACM SIG'SPATIAL 2014)*, ACM Press, Dallas, November 5-7, pp. 541-544.
- . Mata, F. and Claramunt, C., 2013, Augmented reality in outdoor spaces. In *20th International Conference on*

- Advances in GIS (ACM SIG'SPATIAL 2013), ACM Press, Orlando, November 5-8, pp. 534-537.. McArdle, G., Petit, M., Ray, C. and Claramunt, C., 2012, Recommendations based on region and spatial profiles. In Proceedings of the 11th International Symposium on Web and Wireless Geographical Information Systems: W2GIS'12, Di Martino, S., Peron, A. and Tezuka, T. (eds.), Springer LNCS 7236, Napoli, Italy, pp. 167-184.. Mata, F., Claramunt, C. and Juarez A., 2011, An experimental virtual museum based on augmented reality and navigation, in 19th International Conference on Advances in GIS (ACM SIGSPATIAL GIS 2011), D. Agrawal et al. (eds.), Chicago, 1-4 November, ACM Press, pp. 497-500. . Ray, C., Goralski, R., Claramunt, C. and Gold, C., 2011, Real-time 3D monitoring for marine navigation, in 5th International Workshop on Information Fusion and Geographic Information Systems (IF&GIS'11), V. Popovich et al. (eds.), LNG&C, Springer-Verlag, pp. 161-175. . Mata, F., Jaramillo, A. and Claramunt, C., 2011, A mobile navigation and orientation system for blind users in a metrobus environment, in 10th International Symposium on Web and Wireless GIS (W2GIS 2010), K. Tanaka, P. Frohlich and K.-S. Kim (eds.), Springer LNCS 6574, Kyoto, Japan, March 3-4, pp. 94-108.. Yang, W., Claramunt, C., Aufaure, M.-A. and Zhang, W., 2010, User-centric similarity and proximity measures for spatial personalization, International Journal of Data Warehousing and Mining (IJDWM), IGI Global Publishing, 6(2), 59-78. . Mac Aoidh, E., McArdle, G., Petit, M, Ray, C., Bertolotto, M, Claramunt, C. and Wilson, D., 2009, Personalization in adaptive and interactive GIS, Annals of GIS, Taylor and Francis, 15(1), 23-33.. Petit, M, Ray, C. and Claramunt, C., 2009, Caractérisation de l'environnement d'exécution pour la conception d'un système d'information mobile et distribué, Ingénierie des Systèmes d'Information, Hermes Lavoisier, 14(5), 11-34.. Redoutey, M, Scotti, E., Jensen, C., Ray, C. and Claramunt, C., 2008, A flexible tracking-based strategy for maritime trajectories, in 8th International Symposium on Web and Wireless GIS (W2GIS 2008), M. Bertolotto et al. (eds.), Springer LNCS 5373, Shanghai, China, December 11-12, pp. 140-151. . Petit, M, Claramunt, C., Ray, C. and Calvary, G., 2008, A design process for the development of interactive and adaptive GIS, in 8th International Symposium on Web and Wireless GIS (W2GIS), M. Bertolotto et al. (eds.), Springer LNCS 5373, Shanghai, China, December 11-12, pp. 96-106. . Petit, M., Ray, C. and Claramunt, C., 2008, An adaptive interaction architecture for collaborative GIS, Cartographic & Geographic Information Science, Cartography and Geographic Information Society (CaGIS), 35(2), 91-102.· Bertrand, F., Bouju, A., Claramunt, C., Devogele, T. and Ray, C., 2007, Web architecture for monitoring and visualizing mobile objects in maritime contexts, in 7th International Symposium of Web and Wireless Geographical Information Systems (W2GIS), Springer-Verlag, LNCS, M. Ware and G. Taylor (eds.), Cardiff, UK, pp 94-105.· Agrawal, P., Bera, R. and C. Claramunt, 2007, Inference of social and spatial communities over the World Wide Web, chapter 8 in The Geospatial Web, A. Scharl and K. Tochtermann (eds.), Springer-Verlag, LN series in Geo-information and Cartography, pp. 141-152.· Claramunt, C., Devogele, T., Fournier, S., Noyon, V., Petit, M. and Ray, C., 2007, Maritime GIS: From Monitoring to Simulation Systems, in Information Fusion and Geographic Information Systems, V. Popovitch, M. Schrenk and K. Korolenko (eds.), Springer Verlag, LN series in Geoinformation and Cartography, St Petersburg, Russia, pp. 34-44. . Petit, M., Ray, C. and Claramunt, C., 2007, A user context approach for adaptive and distributed GIS, in 10th International Conference on Geographical Information Science, M Wachowicz and S. Fabrikant (eds.), Springer-Verlag, LN series on Geo-information and Cartography, Aalborg, Denmark, pp. 121-133. . Bera, R. and Claramunt, C., 2007, Connectivity inferences over the web for the analysis of semantic networks, International Journal of Web Engineering and Technology, Inderscience Publishing, 3(2), pp. 123-138. . Osman, T., Dhavalkumar, T., Yang, W. and Claramunt, C., 2006, Semantic spatial web services with case-based reasoning, in 6th International Symposium of Web and Wireless Geographical Information Systems (W2GIS), J. Carswell and T. Tezuka (eds.), Springer-Verlag LNCS 4295, Hong Kong, December 4-5, pp 247-258. . Petit, M., Ray, C. and Claramunt, C., 2006, A contextual approach for the development of GIS: Application to maritime navigation, in 6th International Symposium of Web and Wireless Geographical Information Systems (W2GIS), J. Carswell and T. Tezuka (eds.), Springer-Verlag LNCS 4295, Hong Kong, December 4-5, pp 158-169. . Agrawal, P., Bera, R. and C. Claramunt, C., 2006, A social and spatial network approach to the investigation of research communities over the World Wide Web, In 4th International Conference on Geographic Information Science, Münster, Germany, H. Miller, A. Frank and M. Goodchild (Eds.), Springer-Verlag LNCS 4197, pp.1-17. . Yang, Y. and Claramunt, C., 2005, A hybrid approach for spatial web personalisation, in 5th International Symposium of Web and Wireless Geographical Information Systems (W2GIS), K.-J. Li and C. Vangenot (Eds.), Springer, Lecture Notes in Computer Science 3833, December, pp. 206 – 221. . Bera, R. and Claramunt, C., 2005, Connectivity inferences over the web for the analysis of semantic networks, in 5th International Symposium of Web and Wireless Geographical Information Systems (W2GIS), K.-J. Li and C. Vangenot (Eds.), Springer, Lecture Notes in Computer Science 3833, December, pp. 222 – 234. . Yang, Y. and Claramunt, C., 2004, User preference elicitation and refinement in web geographical information systems, invited paper, in 4th International Workshop on Web and Wireless GIS, Hankuk Aviation University, pp. 27-44. . Huang, B. and Claramunt, C., 2004, Environmental simulation within a virtual environment, ISPRS Journal of Photogrammetry and Remote Sensing, Special Issue on advanced techniques for analysis of geo-spatial data, Elsevier Science, 59, 1-2, 73-84. . Yang, Y. and Claramunt C. 2004, A flexible competitive neural network for eliciting user's preferences in web urban spaces, in 11th International Spatial Data Handling Conference, Springer-Verlag, 23-25 August, University of Leicester.

GIS, simulation and transportation GIS

- Tsatcha D., Saux, E. and Claramunt, C., 2014, A bi-directional path-finding algorithm and data structure for maritime routing, International Journal of Geographical Information Science, Taylor and Francis, 28(7), 1355-1377. · Chen, S., Claramunt, C. and Ray, C., 2014, A spatio-temporal modelling approach for the study of the connectivity and accessibility of the Guangzhou metropolitan network,

- Journal of Transport Geography, Elsevier, 36, 12-25.
- Chen, S., Tan, J., Claramunt, C. and Ray, C., 2011, Multiscale and multimodal GIS-T data model, *Journal of Transportation Geography*. Elsevier, 19(1), 147-161.
 - Chen, S. Claramunt, C. Ray, C. and Tan, J., 2009, A multiscale and multimodal transportation GIS for the city of Guangzhou, *Information Fusion and Geographic Information Systems, Lectures Notes in Geoinformation and Cartography*, St Petersburg, pp. 95-111, 17-20 May.
 - Ray, C. and Claramunt C., 2005, A new distributed computing approach for the modelling and simulation of disaggregated data flows: application to an airport system, *Integrated Land-Use and Transportation Models: Behavioural Foundations*, Doherty S. et M. Lee-Gosseling (eds.), Pergamon.
 - Claramunt, C., Fournier, S., Li, X. and Peytchev, E., 2005, Real-time geographical information for ITS, invited paper, in 5th IEEE International Conference in Intelligent Transportation Systems, pp. 237-242.
 - Ray, C. and Claramunt, C., 2003, A distributed system for the simulation of people flows in an airport terminal - Knowledge-based systems, Elsevier, 16(4), pp. 191-203.
 - Fournier, S., Devogele, T. and Claramunt C., 2003, A role-based multi-agent model for concurrent navigation systems, in 6th AGILE Conference on Geographic Information Science, Gould, M. et al. (eds.), Presses Polytechniques et Universitaires Romandes, pp. 623-632
 - Ray, C. and Claramunt C., 2002, ATLAS: A distributed system for the simulation of large-scale systems, in 10th International ACM GIS Conference, Washington D. C., ACM Press, S. C. Chen et A. Voisard (eds.), ACM Press, Washington D. C., pp. 155-162.
 - Peytchev, E. and Claramunt, C., 2001, Experiences in building decision support systems for traffic and transportation GIS, in 9th International ACM GIS Conference, W. G. Aref (ed.), ACM Press, Atlanta, pp. 154-159.
 - Barbe, F., Gélébart, F., Devogele, T. and Claramunt, C., 2001, A knowledge-based GIS for concurrent navigation monitoring, *Spatial Information in the Environment*, P. Hall (ed.), Taylor and Francis.
 - Knighton, R. and Claramunt, C., 2001, An aeronautical temporal GIS for post-flight assessment of navigation performance, *Transactions in GIS*, Blackwell Pub., 5(1), pp. 53-66.
 - Claramunt, C. and Jiang, B., 2001, A qualitative model for the simulation of traffic behaviours in a multi-lane environment, *Journal of Geographical Sciences*, Springer, 11(5), 29-42.
 - Claramunt, C. and Lardon, S. (eds), 2000, SIG et Simulations, Special issue, *Revue Internationale de Geomatique*, Hermes Science, Paris, France.
 - Claramunt, C., Jiang, B. and Bargiela, A., 2000, A new framework for the visualisation of urban traffic data, *Transportation Research Part C*, Elsevier Science (Pub.), 8(1-6), pp. 167-184.
 - Grzywacz, M. and Claramunt, C., 2000, An implementation of temporal operations within a cooperative traffic system, *International Journal of Applied Systems Studies*, special issue on cooperative information systems, 1(3), Cambridge University Press.
 - Valsecchi, P., Claramunt, C. and Peytchev, E., 1999, OSIRIS: An inter-operable system for the integration of real time traffic data within GIS, *Computer Environment and Urban Systems*, 23(4), Pergamon Press, pp. 245-257.
 - Claramunt, C., Bargiela, A. and E. Peytchev, 1999, A real-time GIS for the analysis of a traffic system, in 5th IEEE Africon'99 Conference, Cape Town, South Africa, The IEEE Society, September-October 1999, pp. 15-20.
 - Valsecchi, P., Claramunt, C., Spaccapietra, S., 1999, A cooperative real-time GIS for traffic management, in *Cooperative Databases and Applications*, Y. Zhang, M. Rusinkiewicz and Y. Kambayashi (eds.), Springer-Verlag, pp. 303-315.
 - Valsecchi, P., Claramunt, C. and Peytchev, E., 1999, OSIRIS: An inter-operable system for the integration of real time traffic data within GIS, 1st Telegeoprocessing Conference, Lyon, R. Laurini (ed.), pp. 40-46 (re-printed as a journal publication).
 - Kosonen, I., Bargiela, A. and Claramunt, C., 1998, A distributed information system for traffic control, in Xth European Symposium in Simulation Systems, Nottingham, A. Bargiela and E. Kerckhoffs (eds.), pp. 355-361.
 - Claramunt, C., Bargiela, A. and E. Kerckhoffs (eds.), 1998, *Urban GIS and space syntax*
 - Silavi, T., Hakimpour, F., Claramunt, C. and Nourian, F., 2017, The legibility and permeability of cities: examining the role of spatial data and metrics, *ISPRS International Journal of Geo-information*, (6), 1, 101.
 - Silavi, T., Hakimpour, F., Claramunt, C. and Nourian, F., 2016, Design of a spatial database to analyze the forms and responsiveness of an urban environment using an ontological approach, *Cities*, Elsevier, 53, 8-19.
 - Li, X., Claramunt, C. and Ray, C., 2010, A grid graph-based model for the analysis of 2D indoor spaces, *Computers Environment and Urban Systems*, Elsevier, 34(6), 532-540.
 - Li, X., Claramunt, C., Kung, H. T. and Guo, Z., 2008, A decentralised and continuity-based algorithm for delineating shelters' service areas, *Environment Planning B*, 35(4), pp. 593-608.
 - Tomko, M., Winter, S. and Claramunt, C., 2008, Experiential hierarchies of streets, *Computers, Environment and Urban Systems*, Elsevier Science, 32(1), pp. 41-52.
 - Claramunt, C., and Winter, S., 2007, Structural salience of elements of the city, *Environment Planning B*, 34(6), pp 1030-1050.
 - S. Chen, C. Ray, J. Tan and C. Claramunt, 2006, Integrated Transportation GIS for the City of Guangzhou, in 6th International Conference on ITS Telecommunications (ITS-T 2006), W. Guangan, S. Komaki, F. Pingzhi and G. Landrac (eds.), Chengdu, China, pp 894-897.
 - Jiang, B. and Claramunt, C., 2004, A structural approach to the model generalisation of an urban street network, *Geoinformatica*, 8(2), 151-171.
 - Jiang, B. and Claramunt, C., 2004, Topological analysis of urban street networks, *Environmental Planning B*, vol. 31, pp. 151-162.
 - Claramunt, C., *Le concept de vue spatiale*, 2002, *Langages pour les Systèmes d'Information Géographiques*, Hermès Science Publications, Paris, pp. 47-65.
 - Jiang, B. and Claramunt, C., 2002, A structured approach to model generalisation of an urban street network, 5th Agile conference, 25-27 April, Palma, Spain.
 - Jiang, B. and Claramunt, C., 2002, Integration of space syntax within GIS: new perspectives for urban morphology, *Transaction in GIS*, 6(3), 277-

293. · Jiang, B., Claramunt, C. and Klarqvist, B., 2001, An integration of space syntax into GIS for urban planning and design, *International Journal of Applied Earth Observations and Geoinformation*, International Institute for Aerospace Survey and earth Sciences (ITC), Enschede, The Netherlands, 2(3/4), pp. 161-171.
- Jiang, B. and Claramunt, C., 2000, Extending space syntax towards an alternative model of space within GIS, 3rd European Agile Conference on Geographic Information Science, Helsinki, Finland.
- Jiang, B., Claramunt, C. and M. Batty, 1999, Geometric accessibility and geographic information: extending desktop GIS to space syntax, *Computer Environment and Urban Systems*, Elsevier Science, 23(2), pp. 127-146.
- Belouaer, L., Brosset, D. and C. Claramunt, 2016, From verbal route descriptions to sketch maps in natural environments, *SIGSPATIAL/GIS 2016*: 13:1-13:10.. Georis-Creuseveau, J., Gourmelon, F. and Claramunt, C., 2015, Infrastructures de données géographiques : quelle contribution à la Gestion intégrée des zones côtières françaises ?, *Vertigo - la revue électronique en sciences de l'environnement*, 15(1).. Maslov, N., Charpentier, J.-F. and Claramunt, C., 2015, A modeling approach for a cost-based evaluation of the energy produced by a marine energy farm, *International Journal of Marine Energy*, 9(1), 1-19.. Maslov, N., Brosset, D., Claramunt, C. and Charpentier, J.-F., 2014, A GIS-based multi-criteria approach for marine energy farm planning, *ISPRS International Journal of Geo-Information*, 3(2), 781-799.. Belouaer, L., Brosset, D. and C. Claramunt, 2013, Modeling Spatial Knowledge from Verbal Descriptions, *Spatial Information Theory - 11th International Conference, COSIT 2013*, Scarborough, UK, Springer LNCS, September 2-6, 338-357.. Brosset, D. and Claramunt, C., 2011, An experimental ant colony approach for the geolocation of verbal route descriptions, *Knowledge-based Systems*, Elsevier, 24(4), 484-491. · Le Yaouanc, J.-M., Saux, E. and C. Claramunt, 2010, A Visibility and Spatial Constraint-Based Approach for Geopositioning, in 6th international conference on Geographic Information Science (GIScience 2010), S. I. Fabrikant et al. (Eds.), Springer, LNCS 6292, Zurich, 14-17th September, pp. 145-159.
- Le Yaouanc, J.-M., Saux, E. and Claramunt, C., 2010, A Semantic and Language-based Representation of an Environmental Scene, *Geoinformatica*, 14(3), 333-352. · Brosset, D., Claramunt, C. and Saux, E., 2008, An ACS cooperative learning approach for route finding in natural environment, in 16th ACM GIS International Conference in Advances in Geographical Information Systems (ACM GIS), W. G. Aref et al. eds., Irvine, CA, USA, November 5-7, pp. 97-104. · Le Yaouanc, J. M., Saux, E. and Claramunt, C., 2008, A semantic and language-based model of landscape scenes, in 2nd International Workshop on Semantics and Conceptual Issues in GIS (SeCoGIS 2008), Springer LNCS 5232, Barcelona, 20-23 October, pp. 334-343. Extended version published in a special issue of *Geoinformatica*, 14(3), 333-352, 2010)· D. Brosset, C. Claramunt and Saux, E., 2008, Wayfinding in natural and urban environments: a comparative study, *Cartographica*, Toronto University Press, 43(1), pp. 21-30.
- D. Brosset, C. Claramunt and Saux, E., 2007, A location and action-based model for route descriptions, in 2nd International Conference on Geospatial Semantics, F. Fonseca, A. Rodriguez and S. Levashkin (eds.), Springer Verlag, LNCS 4853, Mexico, pp. 146-159.· Fournier, S., Devogele, T. and Claramunt, C., 2007, Un modèle de raisonnement contextuel pour la navigation maritime, *Revue Internationale de Géomatique*, 15, pp 63-89. · Mendonca, L. and Claramunt, C., 2001, An integrated landscape and local analysis of land cover evolution in an alluvial zone, *Computers Environment and Urban Systems*, Elsevier Science, 25(6), pp. 557-577.· De Sède, M.H., Claramunt C. and Husler R., 1996, A GIS framework for land-planning assessment, in Conference on Environmental Geology and Land-Use Planning, Granada, Spain, Montero, J. C. and Fernández, C. I. (eds.), vol.2, pp. 9-22. · Prelaz-Droux, R., de Sède, M.H., Vidale, L. and Claramunt, C., 1994, A spatially referenced information system for rural environment management, in Sustainable Land Use Planning, van Lier, H. N., Jaarsma, C. F., Jurgens, C. R. and de Buck, A. J. eds., Elsevier, Amsterdam, The Netherlands, pp. 257-270.· Claramunt, C., de Sède, M.H., Prelaz-Droux, R. and Vidale, L., 1993, Integration of heterogeneous GIS for environmental planning and management, *GIS Technology and Applications*, Hongjun Lu and Beng Chin Ooi Eds, World Scientific Pub., Singapore, pp. 404-415.
- de Sède, M.H., Prelaz-Droux, R., Claramunt, C. and Vidale, L., 1993, SIG, télédétection et gestion des ressources en eau: des outils pertinents pour une problématique de taille, *Actes 5ième journées scientifiques du réseau de l'UREF*, Tunis, Presses Université du Québec, pp. 121-134.· Vidale, L., Claramunt, C., de Sède, M.H. and Prelaz-Droux, R., 1993, Environmental analysis and GIS: the importance of meta-information, in AM/FM International Conference, Strasbourg, France.· de Sède, M.H., Prelaz-Droux, R., Claramunt, C. and Vidale, L., 1992, Development of decision support tool for environment management, the GERMINAL project, *Proceedings of EGIS' 92*, Munich, Germany, pp. 1457-1466.