

Thierry Fraichard — Main Publications

March 13, 2012

Scientific Journal Articles

- [1] S. Bouraine, T. Fraichard, and H. Salhi. Provably safe navigation for mobile robots with limited field-of-views in dynamic environments. *Autonomous Robots*, 2012.
- [2] T. Fraichard and J. Kuffner. Guaranteeing motion safety for robots. *Autonomous Robots*, 2012.
- [3] K. Macek, D. Vasquez, T. Fraichard, and R. Siegwart. Towards safe vehicle navigation in dynamic urban scenarios. *Automatika*, 50(3-4), November 2009. [\[www\]](#).
- [4] D. Vasquez, T. Fraichard, and C. Laugier. Growing hidden markov models: a tool for incremental learning and prediction of motion. *Int. Journal Robotics Research*, 28(11-12), November 2009. [\[www\]](#).
- [5] D. Vasquez, T. Fraichard, and C. Laugier. Incremental learning of statistical motion patterns with growing hidden markov models. *IEEE Trans. Intelligent Transportation Systems*, 10(3), September 2009. [\[www\]](#).
- [6] T. Fraichard and V. Delsart. Navigating dynamic environments with trajectory deformation. *Computing and Information Technology*, 17(1), March 2009. [\[www\]](#).
- [7] D. Vasquez, T. Fraichard, O. Aycard, and C. Laugier. Intentional motion on-line learning and prediction. *Machine Vision and Applications*, 19(5-6), October 2008. [\[www\]](#).
- [8] J. Burlet, T. Fraichard, and O. Aycard. Robust navigation using markov models. *Advanced Robotic Systems*, 5(2), June 2008. [\[www\]](#).
- [9] C. Laugier, D. Vasquez, M. Yguel, T. Fraichard, and O. Aycard. Geometric and bayesian models for safe navigation in dynamic environments. *Intelligent Service Robotics*, 1(1), January 2008. [\[www\]](#).
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- [11] C. Coue, C. Pradalier, C. Laugier, T. Fraichard, and P. Bessiere. Bayesian occupancy filtering for multi-target tracking: an automotive application. *Int. Journal Robotics Research*, 25(1), January 2006. [\[www\]](#).

- [12] T. Fraichard and A. Scheuer. From reeds and shepp’s to continuous-curvature paths. *IEEE Trans. Robotics*, 20(6), December 2004. [\[www\]](#).
- [13] T. Fraichard and H. Asama. Inevitable collision states. a step towards safer robots? *Advanced Robotics*, 18(10), 2004. [\[www\]](#).
- [14] T. Fraichard and Ph. Garnier. Fuzzy control to drive car-like vehicles. *Robotics and Autonomous Systems*, 34(1), January 2001. [\[www\]](#).
- [15] C. Laugier, T. Fraichard, Ph. Garnier, I. E. Paromtchik, and A. Scheuer. Sensor-based control architecture for a car-like vehicle. *Autonomous Robots*, 6(2), April 1999. [\[www\]](#).
- [16] T. Fraichard. Trajectory planning amidst moving obstacles: Path-velocity decomposition revisited. *J. Braz. Comp. Soc.*, 4(3), April 1998. Special Issue on Robotics and Computer Vision [\[www\]](#).
- [17] T. Fraichard. Trajectory planning in a dynamic workspace: a ‘state-time space’ approach. *Advanced Robotics*, 13(1), 1998. [\[www\]](#).

Popular Journal Articles

- [18] Th. Fraichard. Cybercar: l’alternative à la voiture particulière. *Navigation (Paris)*, 53(209), January 2005. [\[www\]](#).
- [19] Th. Fraichard. Motion Planning for Autonomous Car-like Vehicles. *ERCIM News*, 42, July 2000. [\[www\]](#).
- [20] Th. Fraichard and I. Mazon. Projet Sharp: Robotique en Environnement Réel. *Bulletin de l’Association Française d’Intelligence Artificielle*, 27, November 1996. [\[www\]](#).

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- [22] D. Vasquez, Th. Fraichard, and C. Laugier. Incremental learning of statistical motion patterns with growing hidden markov models. In M. Kaneko and Y. Nakamura, editors, *Robotics Research*, volume 66 of *Springer Tracts in Advanced Robotics Series*. Springer, 2011. [\[www\]](#).
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- [25] M. Tay, K. Mekhnacha, M. Yguel, C. Coué, C. Pradalier, C. Laugier, Th. Fraichard, and P. Bessière. The Bayesian Occupation Filter. In P. Bessière, C. Laugier, and R. Siegwart, editors, *Probabilistic Reasoning and Decision Making in Sensory-Motor Systems*, volume 46 of *Springer Tracts in Advanced Robotics Series*. Springer, 2008. [\[www\]](#).
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- [34] T. Fraichard and J. Kuffner, editors. *Special Issue on Guaranteeing Motion Safety for Robots*, Autonomous Robots, 2012.
- [35] Th. Fraichard and C. Laugier, editors. *Proc. of the European Prometheus Workshop on Intelligent Co-Pilot*, Grenoble (FR), December 1991.

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- [36] S. Bouraine, Th. Fraichard, and H. Salhi. Provably safe navigation for mobile robots with limited field-of-views in unknown dynamic environments. In *IEEE Int. Conf. on Robotics and Automation*, Saint Paul (US), May 2012.
- [37] O. Aycard, T.-D. Vu, Q. Baig, and Th. Fraichard. A generic architecture for embedded perception in dynamic outdoor environment. In *IEEE Int. Conf. on Tools with Artificial Intelligence*, Boca Raton (US), November 2011. [\[www\]](#).
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- [108] Th. Fraichard. *Contributions à la planification de mouvement*. Habilitation à diriger des recherches, Inst. Nat. Polytechnique de Grenoble, Grenoble (FR), March 2006. [\[www\]](#).
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