

March 2015

LIST OF PUBLICATIONS

Michel de Mathelin

1. Chapters of book (12)

- [1-Nag14] Nageotte F., B. Bardou, P. Zanne, L. Ott, M. de Mathelin. Control Issues and Possible Solutions in Flexible Robotized Endoscopy, dans *Computational Surgery and Dual Training*, pp. 193-201, Marc Garbey, B. Bass, S. Berceli, Ch. Collet, P. Cerveri (Eds.), Springer, 2014.
- [1-Bay14] Bayle B., M. Joinie-Maurin, L. Barbé, J. Gangloff, M. de Mathelin. Robot interaction control in medicine and surgery. Open problems and recent results, dans *Computational Surgery and Dual Training*, pp. 169-191, Marc Garbey, B. Bass, S. Berceli, Ch. Collet, P. Cerveri (Eds.), Springer, 2014.
- [1-Don13] De Donno A., F. Nageotte, P. Zanne, L. Goffin, M. de Mathelin. A Simulator for Designing Control Schemes for a Teleoperated Flexible Robotic System, dans *Augmented Environments for Computer-Assisted Interventions*, pp. 90-104, Cristian A. Linte, Elvis C. S. Chen, Marie-Odile Berger, John T. Moore, David R. Holmes III (Eds.), Springer Berlin Heidelberg, 2013.
- [1-Dom13b] Dombre E., N. Chaillet, M. de Mathelin. Towards intracorporeal robotics, dans *Medical robotics*, Chap. 10, pp. 351-395, J. Troccaz (Eds.), Wiley, 2012.
- [1-Dom13a] Dombre E., M. de Mathelin, J. Troccaz. Characteristics and state of the art, dans *Medical Robotics*, Chap. 1, pp. 1-53, J. Troccaz (Eds.), Wiley, 2012.
- [1-Sol12] Soler L., S. Nicolau, M. de Mathelin, J. Marescaux. Computer assisted NOTES : from augmented reality to automation, dans *Natural Orifice Transluminal Endoscopic Surgery (NOTES)*, Chap. 9, pp. 94-103, ed. A. Kalloo, J. Marescaux, R. Zorron (Eds.), Wiley-Blackwell, Oxford, 2012.
- [1-Dom12b] Dombre E., N. Chaillet, M. de Mathelin. Vers une robotique intra-corporelle, dans *Robotique médicale*, Chap. 10, pp. 351-395, J. Troccaz (Eds.), Hermès-Lavoisier, 2012.
- [1-Dom12a] Dombre E., M. de Mathelin, J. Troccaz. Spécificités et état de l'art, dans *Robotique médicale*, Chap. 1, pp. 1-53, J. Troccaz (Eds.), Hermès-Lavoisier, 2012.
- [1-Bay10] Bayle B., O. Piccin, L. Barbé, P. Renaud, M. de Mathelin. Robot Assisted procedures in Interventional Radiology, *Computational Surgery and Dual Training*, Chap. 11, pp. 191-205, M. Garbey, B. Bass, C. Collet, M. de Mathelin, R. Tran-Son-Tay (Eds.), Springer, 2010.
- [1-Bar10] Bardou B., F. Nageotte F., P. Zanne P., M. de Mathelin. Design of a robotized flexible endoscope for natural orifice transluminal endoscopic surgery. *Computational Surgery and Dual Training*. Chap. 9, pp. 155-170, ed. M. Garbey, B. Bass, C. Collet, M. de Mathelin, R. Tran-Son-Tay (Eds.), Springer, 2010.
- [1-Doi07] Doignon C. F. Nageotte, M. de Mathelin. Segmentation and Guidance of Multiple Rigid Objects for Intra-operative Endoscopic Vision, dans *Dynamical Vision, Lecture Notes in Computer Science, Vol. 4358*, pp. 314-327, R. Vidal, A. Heyden & Y. Ma (Eds.), Springer-Verlag, 2007.
- [1-deM01] de Mathelin, M. Panorama des algorithmes récursifs d'estimation paramétrique. Dans *Identification et commande adaptative*, coordonnateur : R. Lozano et D. Taoutaou (Eds.), Traité IC2, Hermès, Paris, 2001.

2. Articles in international refereed journals (39)

- [2-Gar15] Garnon J., A. Schlier, X. Buy, G. Tsoumakidou, M. de Mathelin, É. Breton, A. Gangi. Evaluation of percutaneous biopsies of renal masses under MRI-guidance: a retrospective study about 26 cases, *European Radiology*, Vol. 25(3) : 617--623, March 2015.
- [2-Abd14] Abdelaziz S., L. Esteveny, L. Barbé, P. Renaud, B. Bayle, M. de Mathelin. Design of a Magnetic Resonance Imaging-compatible Cable-driven Manipulator with New Instrumentation and Synthesis Methods, *Journal of Mechanical Design*, Vol. 136(9) : 1--12, ASME International, June 2014.
- [2-Gan12] Gangi A., G. Tsoumakidou, O. Abdelli, X. Buy, M. de Mathelin, D. Jacqmin, H. Lang. Percutaneous MR-guided cryoablation of prostate cancer : initial experience, *European Radiology*, Vol. 22(8) : 1829--1835, August 2012.
- [2-Cuv12] Cuvillon L., E. Laroche, J. Gangloff, M. de Mathelin. A multivariable methodology for fast visual servoing of flexible manipulators moving in a restricted workspace, *Advanced Robotics*, Vol. 26(15) : 1771--1797, May 2012.
- [2-Zor12] Zorn L, P. Renaud, B. Bayle, L. Goffin, C. Lebossé, M. de Mathelin, J. Foucher. Design and evaluation of a robotic system for transcranial magnetic stimulation. *IEEE Transactions on Biomedical Engineering*. Vol. 59(3) : 805-815, March 2012.
- [2-Abd11] Abdelaziz S., L. Esteveny, P. Renaud, B. Bayle, L. Barbe, M. de Mathelin, A. Gangi. Design Considerations for a Novel MRI Compatible Manipulator for Prostate Cryoablation. *International Journal of Computer Assisted Radiology and Surgery*, Vol. 6(6) : 811-819, November 2011.
- [2-Ehl11b] Ehlinger M., T. Moser, G. Bierry, P. Adam, J.-P. Armspach, F. Bonnet, A. Gangi, M. de Mathelin,. Can CT scan with injection evaluate the residual vascularisation of the femoral head after acute neck fracture? *Orthopaedics & Traumatology: Surgery & Research*, Vol. 97(4):367--372, June 2011.

- [2-Leb11] Lebossé C., P. Renaud, B. Bayle, M. de Mathelin. Modeling and evaluation of low cost force sensors. *IEEE Transactions on Robotics*, Vol. 27(4):815--822, 2011.
- [2-Ott11] Ott L., F. Nageotte, P. Zanne, M. de Mathelin. Robotic Assistance to Flexible Endoscopy by Physiological Motion Tracking. *IEEE Transactions on Robotics*, Vol. 27(2):346--359, 2011.
- [2-Ehl11a] Ehlinger M., T. Moser, P. Adam, G. Bierry, A. Gangi, M. de Mathelin, F. Bonnet. Early prediction of femoral head vascular necrosis following neck fracture. *Orthopaedics & Traumatology: Surgery & Research*, Vol. 97(1): pp. 79-88, 2011.
- [2-Nag09] Nageotte F., P. Zanne, C. Doignon and M. de Mathelin. Stitching planning in laparoscopic surgery : towards robot-assisted suturing. *International Journal of Robotics Research*, Vol. 28(10): 1303-1321, 2009. **Special issue on medical robotics.**
- [2-Ott09] Ott L., F. Nageotte, P. Zanne, M. de Mathelin. Simultaneous physiological motion cancellation and depth adaptation in flexible endoscopy. *IEEE Transactions on Biomedical Engineering*, Vol. 56(9): 2322-2328, 2009.
- [2-Pic09] Piccin O., L. Barbé, B. Bayle, M. de Mathelin. A force feedback teleoperated needle insertion device for percutaneous procedures. *International Journal of Robotics Research*, Vol. 28(9): 1154-1168, 2009. **Special issue on medical robotics.**
- [2-Pic09] Piccin O., B. Bayle, B. Maurin, M. de Mathelin. Kinematic modeling of a 5-DOF parallel mechanism for semi-spherical workspace. *Mechanism and MaChina Theory*, Vol. 44 (8): 1485-1496, 2009.
- [2-Mau09] Maurin B., C. Doignon, M. de Mathelin, A. Gangi. A Fast and Automatic Stereotactic Registration with a Single CT-slice. *Computer Vision and Image Understanding*, Vol. 113(8): p.878-890, 2009.
- [2-All09] Allemann P., L. Ott, M. Asakuma, N. Masson, S. Perretta, B. DGermany, D. Coumaros, M. de Mathelin, L. Soler, J. Marescaux. Joystick interfaces are not suitable for robotized endoscope applied to NOTES. *Surgical Innovation*, Vol. 16 (2) : 111-116, 2009.
- [2-Mau08] Maurin B., B. Bayle, O. Piccin, J. Gangloff, M. de Mathelin, C. Doignon, Ph. Zanne, A. Gangi. A Patient-Mounted Robotic Platform for CT-scan Guided Procedures. *IEEE Transactions on Biomedical Engineering*, Vol. 55(10):2417-2425, 2008.
- [2-Doi08] Doignon C., B. Maurin, B. Bayle, M. de Mathelin. A visual 3D-tracking and positioning technique for stereotaxy with CT scanners. *Robotics and Autonomous Systems*, Vol. 56(5):385-395, 2008.
- [2-Bar07a] Barbe L., B. Bayle, M. de Mathelin, A. Gangi. In Vivo Model Estimation and Haptic Characterization of Needle Insertions. *International Journal of Robotics Research*, Vol. 26(11-12):1283-1301, 2007. **Special issue on BioRob'06.**
- [2-Bar07b] Barbe L., B. Bayle, M. de Mathelin, A. Gangi. Needle insertions modeling : identifiability and limitations. *Biomedical signal processing and control*, Vol. 2(3):191-198, 2007. **Special issue on MCBMS'06.**
- [2-Riv06] Riviere C., J. Gangloff, M. de Mathelin. Robotic compensation of biological motion to enhance surgical accuracy. *Proceedings of the IEEE*, pages 1705-1716, vol. 94, 2006. **Special issue on medical robotics.**
- [2-Cuv06] Cuvillon L., J. Gangloff, M. de Mathelin, A. Forgione. Towards robotized beating heart TECABG : assessment of the heart dynamics using high-speed vision. *Computer Aided Surgery*, pages 267-277, vol. 11, 2006.
- [2-Miu06] Miura K., K. Hashimoto, H. Inooka, J. Gangloff, M. de Mathelin. Model-less visual servoing using modified simplex optimization. *Artificial Life and Robotics*, pages 131-135, vol. 10, 2006.
- [2-Gan06] Gangloff J., R. Ginhoux, M. de Mathelin, L. Soler, J. Marescaux. Model predictive control for compensation of cyclic organ motions in teleoperated laparoscopic surgery. *IEEE Trans. on Control Systems Technology*, pages 235-246, vol. 14, 2006.
- [2-Doi05] Doignon C., P. Graebbling, M. de Mathelin. Real-time segmentation of surgical instruments inside the abdominal cavity using a joint hue saturation color feature. *Real-Time Imaging*, pages 429-442 no 11, 2005.
- [2-Gin05] Ginhoux R., J. Gangloff, M. de Mathelin, L. Soler, M. Arenas Sanchez and J. Marescaux. Active Filtering of Physiological Motion in Robotized Surgery Using Predictive Control. *IEEE Transactions on Robotics*, vol 21, no 1, pages 67-79, 2005. **Best Transactions Paper Award for the year 2005.**
- [2-Kru04] Krupa A., G. Morel, M. de Mathelin. Achieving High Precision Laparoscopic Manipulation Through Adaptive Force Control. *Advanced Robotics*, vol. 18, no 9, pages 905-926, 2004.
- [2-Gan03] Gangloff J., M. de Mathelin. High speed visual servoing of a 6 DOF manipulator using multivariable predictive control. *Advanced Robotics*, vol. 17, no 10, pages 993-1021, December 2003.
- [2-Kru 03] A. Krupa, J. Gangloff, C. Doignon, M. de Mathelin, G. Morel, J. Leroy, L. Soler, J. Marescaux. Autonomous 3-D positioning of surgical instruments in robotized laparoscopic surgery using visual servoing. *IEEE Transactions on Robotics and Automation*, vol. 19, no 5, pages 842 -853, 2003. **Special issue on medical robotics.**
- [2-Gan02] Gangloff J. and M. de Mathelin. Visual servoing of a 6 DOF manipulator for unknown 3D profile following. *IEEE Trans. Robotics and Automation*, 18, 511-520, 2002.

- [2-deM02] de Mathelin, M. Comments on a robust model reference adaptive control for non-minimum phase systems with unknown or time-varying delay. *Automatica*, 38, 743-744, 2002.
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3 Articles in french refereed journals (1)

- [3-Leb08] Lebosse C., B. Bayle, P. Renaud, M. de Mathelin. Planification de mouvements des manipulateurs redondants lorsque le mouvement de l'organe terminal est imposé. *Journal Européen des Systèmes Automatisés*, Vol. 42 (1) :95-115, February 2008.

4 Articles in the proceedings of international conferences (146)

- [3-Gar14b] Garnon J., G. Tsoumakidou, E. Rothgang, M. de Mathelin, É. Breton, A. Gangi. MRI-guided mediastinal biopsies: retrospective evaluation on 15 cases, *Interventional MRI Symposium (iMRI 2014)*, Leipzig, Germany, october 2014.
- [3-Neu14b] Neumann M., É. Breton, L. Cuvillon, L. Pan, E. Rothgang, A. Hengerer, M. de Mathelin. Wireless hybrid passive and active tracking for automatic image plane alignment, *Interventional MRI Symposium (iMRI 2014)*, Leipzig, Germany, october 2014.
- [3-Twi14b] Twinanda A., M. de Mathelin, N. Padoy. Fisher Kernel Based Task Boundary Retrieval in Laparoscopic Database with Single Video Query, *International Conference on Medical Image Computing and Computer-Assisted Intervention (MICCAI), Lecture Notes in Computer Science*, Vol. 8675:409-416, Boston, USA, october 2014.
- [3-Kad14] Kadkhodamohammadi A., A. Gangi, M. de Mathelin, N. Padoy. Temporally Consistent 3D Pose Estimation in the Interventional Room Using Discrete MRF Optimization over RGBD Sequences, *International Conference on Information Processing in Computer-Assisted Interventions (IPCAI), Lecture Notes in Computer Science*, Vol. 8498:168-177, Fukuoka, Japan, June 2014.
- [3-Twi14a] Twinanda A., J. Marescaux, M. de Mathelin, N. Padoy. Towards Better Laparoscopic Video Database Organization by Automatic Surgery Classification, *International Conference on Information Processing in Computer-Assisted Interventions (IPCAI), Lecture Notes in Computer Science*, Vol. 8498:186-195, Fukuoka, Japan, June 2014.
- [3-Cor14] Corbin N., É. Breton, P. Renaud, L. Barbé, M. de Mathelin, J. Vappou. All-in-one interventional MR elastography (MRE) system dedicated to MR-guided percutaneous procedures, *Joint Annual Meeting ISMRM - ESMRMB*, Milan, Italy, May 2014.
- [3-Cuv14} Cuvillon L., É. Breton, J. Schell, J. Kammerer, D. Gounot, L. Hébrard, M. de Mathelin. Real-time automatic tracking with a dedicated 3D Hall-effect integrated circuit for MRI-guided interventions, *Joint Annual Meeting ISMRM - ESMRMB*, Milan, Italiy, May 2014. **Interventional MR Study Group Poster Award, 1st place for Technical Developments.**
- [3-Gar14a] Garnon J., É. Breton, G. Erceg, G. Tsoumakidou, M. de Mathelin, A. Gangi. Cryoablation of malignant liver tumors under MRI-guidance: retrospective study, *Joint Annual Meeting ISMRM - ESMRMB*, Milan, Italy, May 2014.

- [3-Neu14a] Neumann M., É. Breton, L. Cuvillon, M. de Mathelin. Evaluation of a multi-modal passive and active tracking approach for real-time automatic scan plane alignment in interventional MRI, *Joint Annual Meeting ISMRM - ESMRMB*, Milan, Italy, May 2014.
- [3-Sch13b] Schell J.-B., L. Cuvillon, D. Gounot, E. Breton, J.-B. Kammerer, L. Hebrard, M. de Mathelin. Hall effect magnetic tracking device for Magnetic Resonance Imaging, *12th IEEE Sensors*, Baltimore, MD, USA, November 2013.
- [3-DeD13c] De Donno A., F. Nageotte, P. Zanne, L. Zorn, M. de Mathelin. Introducing STRAS: Master/slave control of flexible instruments for minimally invasive surgery, *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2013)*, Tokyo, Japan, November 2013.
- [3-Cor13] Corbin N., Q. Boehler, É. Breton, L. Barbé, P. Renaud, M. de Mathelin, J. Vappou. Assisting MRI-guided percutaneous procedures with elastography: development of an interventional MR-Elastography protocol, dans *Twelfth International Tissue Elasticity Conference (ITEC 2013)*, Lingfield, United Kingdom, October 2013.
- [3-Neu13b] Neumann M., L. Cuvillon, E. Breton, M. de Mathelin. Evaluation of an image-based tracking workflow with Kalman filtering for automatic image plane alignment, in interventional MRI, *35th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC 2013)*, Osaka, Japan, July 2013.
- [3-Sch13a] Schell J.-B., J.-B. Kammerer, L. Hebrard, E. Breton, D. Gounot, L. Cuvillon, M. de Mathelin. Towards a Hall effect magnetic tracking device for MRI, *35th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC 2013)*, Osaka, Japan, July 2013.
- [3-Gin13] Ginhoux R., P. Renaud, L. Zorn, L. Goffin, B. Bayle, J. Foucher, J. Lamy, J.-P. Armspach, M. de Mathelin. A custom robot for transcranial magnetic stimulation : first assessment on healthy subjects, *35th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC 2013)*, Osaka, Japan, July 2013.
- [3-Neu13a] Neumann M., L. Cuvillon, E. Breton, M. de Mathelin. Kalman filter for real-time scan plane control using a passive marker, *27th International Congress of Computer Assisted Radiology and Surgery (CARS 2013)*, Heidelberg, Germany, June 2013.
- [3-DeD13b] De Donno A., L. Zorn, P. Zanne, F. Nageotte, M. de Mathelin. Introducing STRAS: A New Flexible Robotic System for Minimally Invasive Surgery, *IEEE International Conference on Robotics and Automation (ICRA 13)*, Karlsruhe, Germany, May 2013.
- [3-DeD13a] De Donno A., F. Nageotte, P. Zanne, L. Goffin, M. de Mathelin. Using simulation to design control strategies for robotic no-scar surgery, *Medecine Meets Virtual Reality 20 (NextMed/MMVR)*, San-Diego, CA, USA, February 2013. Proceedings published in *Studies in Health Technology and Informatics*, no 184 : 117-121, IOS Press.
- [4-Sch12b] Schell J.-B., J.-B. Kammerer, L. Hebrard, D. Gounot, E. Breton, L. Cuvillon, M. de Mathelin. 3T MRI Scanner Magnetic Gradient Mapping Using a 3D Hall Probe. *IEEE Sensors*, Taipei, Taiwan, October 2012.
- [4-DeD12] De Donno A., F. Nageotte, P. Zanne, L. Goffin, M. de Mathelin. A Simulator for Assessing Control Strategies for a Novel Flexible Robot in No-Scar Surgery, *MICCAI 2012 Workshop on Augmented Environments and Computer Assisted Interventions (AE-CAI)*, Nice, France, October 2012.
- [4-Tso12] Tsoumakidou G., Garnon J., de Mathelin M., A. Gangi. Interventional non-vascular MRI: magnet designs, equipment requirements and technical considerations. Pulse sequences. *Cardiovascular and Interventional Radiology Society of Europe (CIRSE) 2012 Congress*, Lisbonne, Portugal, September 2012.
- [4-Neu12b] Neumann M., E. Breton, L. Cuvillon, L. Pan, C. Lorenz, M. de Mathelin. Real-time scan plane control using a passive marker and resonant micro-coils. *9th International Interventional MRI Symposium*, Boston, MA, États-Unis, September 2012.
- [4-Rot12] Rothgang E., E. Breton, X. Buy, A. Gangi, J. Garnon, R. Hoffmann, M. de Mathelin, L. Pan, H. Rempp, G. Tsoumakidou, C. Weiss, C. Lorenz, W. Gilson. Initial, multi-site clinical experience using an integrated interventional needle guidance workflow, *9th International Interventional MRI Symposium*, Boston, MA, États-Unis, September 2012.
- [4-Neu12a] Neumann M., E. Breton, L. Cuvillon, L. Pan, C. Lorenz, M. de Mathelin. Evaluation of an Image-Based Tracking Workflow Using a Passive Marker and Resonant Micro-Coil Fiducials for Automatic Image Plane Alignment in Interventional MRI. *34th Annual International Conference of the Engineering in Medicine and Biology Society (EMBC 2012)*, San Diego, CA, États-Unis, August 2012.
- [4-Mau12] Maurice X., C. Albitar, C. Doignon, M. de Mathelin. A structured light-based laparoscope with real-time organs' surface reconstruction for minimally invasive surgery, *34th Annual International Conference of the Engineering in Medicine and Biology Society (EMBC 2012)*, San Diego, États-Unis, August 2012.

- [4-Sch12a] Schell J.-B., J.-B. Kammerer, L. Hebrard, E. Breton, D. Gounot, L. Cuvillon, M. de Mathelin. CMOS 3D Hall probe for magnetic field measurement in MRI scanner, *IEEE 20th International New Circuits and Systems Conference (NEWCAS 2012)*, Montréal, Canada, June 2012.
- [3-Fou12] Foucher J., K. Lorgouillou, J. Turek, B.-T. Pham, J. Elowe, B. Bayle, bP. Renaud, L. Goffin, L. Zorn, M. de Mathelin, R. Ginhoux, B. Maurin, J. Lamy, J.-P. Armspach, Robotic assistance in coil positioning improves reliability and comfort, *German Society for Brain Stimulation 2013: Third Annual Conference*, Berlin, Germany, June 2012.
- [4-Bre12] Breton E., E. Rothgang, L. Pan, J. Garnon, G. Tsoumakidou, X. Buy, C. Lorenz, M. de Mathelin, A. Gangi Spinal Infiltrations and Biopsies Using an Advanced Real-Time MR Guidance Approach: Preliminar Clinical Report. *20th annual meeting of the International Society for Magnetic Resonance in Medicine (ISMRM 2012)*, Melbourne, Australia, May 2012.
- [4-Abd12] Abdelaziz S., L. Esteveny, L. Barbé, P. Renaud, B. Bayle, M. de Mathelin. Development of a MR-compatible cable-driven manipulator: design and technological issues. *IEEE International Conference on Robotics and Automation (ICRA 12)*, Saint Paul, MN, USA, May 2012.
- [4-Bar12] Bardou B., F. Nageotte, P. Zanne, M. de Mathelin. Improvements in the control of a flexible endoscopic system. *IEEE International Conference on Robotics and Automation (ICRA 12)*, Saint Paul, MN, USA, May 2012.
- [4-Tso12a] Tsoumakidou G., H. Lang, O. Abdelli, X. Buy, M. de Mathelin, D. Jacqmin, A. Gangi. Percutaneous MR-guided cryoablation of prostate cancer: technical feasibility and preliminary results. *European Congress of Radiology (ECR 2012)*, Vienna, Austria, March 2012.
- [4-Gan11] Gangi A., G. Tsoumakidou, J. Garnon, X. Buy, M. de Mathelin, H. Lang. MR-guided Nonvascular Percutaneous Procedures: Where Are We? *Radiological Society of North America (RSNA 2011)*, Chicago, IL, États-Unis, November 2011.
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- [4-Tso11a] Tsoumakidou G., H. Lang, J. Garnon, X. Buy, E. Breton, M. de Mathelin, C. Kauff, A. Gangi. Percutaneous prostate cryoablation under MR-guidance: technique, advantages and limitations. *Cardiovascular and Interventional Radiological Society of Europe (CIRSE) 2011 Congress*, Munich, Germany, September 2011.
- [4-Abd11b] Abdelaziz S., L. Esteveny, P. Renaud, B. Bayle, M. de Mathelin. Design and Optimization of a Novel MRI Compatible Wire-Driven Robot for Prostate Cryoablation, *2011 ASME International Design Engineering Technical Conferences (IDETC 2011)*, Washington DC, États-Unis, August 2011.
- [4-Abd11a] Abdelaziz S., L. Esteveny, P. Renaud, B. Bayle, L. Barbé, M. de Mathelin, A. Gangi. Design considerations for a novel MRI compatible manipulator for prostate cryoablation. *Computer Assisted Radiology and Surgery (CARS 2011)*, Berlin, Germany, June 2011.
- [4-Mas11] Masson N., P. Zanne, F. Nageotte, M. de Mathelin. Segmentation of in vivo target prior to tracking. *SPIE Medical Imaging*, Lake Buena Vista, FL, USA, February 2011.
- [4-Lar10] Laroche E., L. Barbé, B. Bayle, M. de Mathelin. A methodology for identification of uncertain LFR model of the human operator for telemanipulation with force-feedback. *IEEE Conference on Decision and Control (CDC)*, Atlanta, GA, December 2010.
- [4-Bar10] Bardou B., P. Zanne, F. Nageotte, M. de Mathelin. Control of a multiple sections flexible endoscopic system. *International Conference on Intelligent Robots and Systems (IROS)*, pp. 2345-2350, Taïwan, October 2010.
- [4-Gan10c] Gangi A., X. Buy, J. Garnon, I. Enescu, G. Tsoumakidou, M. de Mathelin. MR-guided non-vascular interventional procedures. *Cardiovascular and Interventional Radiological Society of Europe (CIRSE 2010)*, Valence, Spain, October 2010.
- [4-Gan10b] Gangi A., X. Buy, H. Lang, J. Garnon, B. Dillmann, L. Barbé, M. de Mathelin. MR image-guided percutaneous tumor cryoablation. *8th Interventional MRI Symposium*, Leipzig, Germany, September 2010.
- [4-Abd10] Abdelaziz S., P. Renaud, B. Bayle, M. de Mathelin. Combining Structural and Kinematic Analysis using Interval Analysis for a Wire-driven Manipulator. *International Symposium on Advances in Robot Kinematics*, Piran-Portorož, Slovenia, July 2010.
- [4-Gang10a] Gangi A., X. Buy, G. Tsoumakidou, B. Dillmann, M. de Mathelin. MR guided interventions: Where are we? *European Congress of Radiology (ECR 2010)*, Vienne, Austria, March 2010.

- [4-Ren09] Renaud P., M. de Mathelin. Kinematic Analysis for a Novel Design of MRI-Compatible Torque Sensor. *International Conference on Intelligent Robots and Systems (IROS)*, Saint Louis, MO, USA, October 2009.
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