Resume

Nicolas ANDREFF

born May 17, 1972

Full Professor
at Université de Franche-Comté / Institut FEMTO-ST
Head of the Biomedical Micro-/Nano-Robotics group
Besançon, France

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March 2015

1 Past and current positions

2009-present Professeur des Universités (= Professor) **UFC**, Besançon
Head of MiNaRoB, the Biomedical Micro-/Nano-Robotics group
Main topic : Intracorporeal microrobotics
Research institution : FEMTO-ST Institute (UMR CNRS 6174),
Automatic control and Micro-Mechatronics Systems (AS2M) department

2006-2009 MCF-HDR[1] (≈ US Associate Professor) **IFMA**, Clermont-Ferrand
Main topic : High-speed vision-based dynamic control of parallel kinematic mechanisms
Research institution : LASMEA (UMR CNRS 6602), *Robotics and Vision* Group

2000-2006 MCF (≈ US Assistant Professor) **IFMA**, Clermont-Ferrand
Main topic : Vision-based kinematic calibration of parallel kinematic mechanisms
Research institution : LaRAMA/LaMI, *Mechanisms, Machines and Systems* Group

1999-2000 Post-Doc **INRIA**, Grenoble
Topic : Walking pattern generation for the BIP2000 biped robot (1 Mechatronics, 1 ISER)

1995-1996 Software engineer for the French Army, Paris

2 Education

Research Habilitation (HDR) ***Robotics and Vision*** (Jul. 2006) **UBP**, Clermont-Ferrand

PhD ***Computer Graphics, Vision and Robotics*** (Nov. 1999) **INPG/INRIA**, Grenoble
Topic : Visual servoing from lines and hand-eye calibration (2 IJRR, 2 ICRA, 1 ARK, 1 3DIM)
Supervisors : B. Espiau and R. Horaud

DEA (≈ MSc) ***Robotics, Vision and Computer Graphics*** (June 1995) **INPG**, Grenoble

Ingénieur (≈ MSc) ***Computer Science and Applied Maths*** (June 1994) **ENSEEIHT**, Toulouse
Master thesis : Robustness to jitter in real-time control (7 citations)
Supervisor : Pr. B. Wittenmark, Lunds Tekniska Högskola, Sweden

3 Scientific animation

International level :

- Advisor of the EC DG Connect on Microrobotics for the preparation of Project Calls 2015–2016
- Leader of the Topic Group on Miniaturised Robotics at the euRobotics AISBL for the redaction of a European Strategic Research Agenda 2013 and the Multi-Annual Roadmap 2013
- Steering Committee member for IEEE/ASME AIM 2014
- Local Arrangement Committee member of the 2nd International Workshop on Fundamental Issues and Future Research Directions for Parallel Mechanisms and Manipulators, 2008
- Local Arrangement Committee member of the 9th French-Mexican Summer School on Image and Robotics, 2008

1. MCF=Maître de Conférences, see `http://en.wikipedia.org/wiki/Academic_rank_in_France` for details.

— Organizer (with O. Company, LIRMM) of the Workshop on Next Generation Machines at AIM 2006
— Co-organizer (with P. Martinet, LASMEA) of the Workshop on Visual Servoing at IROS 2002

National level :

— Scientific coordinator of the "Methodologies in Robotics" WP of the GdR Rob [2], 2007-2010
— PC member of Journées Nationales de la Recherche en Robotique (JNRR), 2007, 2009, 2011
— Local Arrangement Committee member of Journées Nationales de la Recherche en Robotique 2003

Local level :

— Creation (2012) and steering of MiNaRoB, the Biomedical Micro-/Nano-Robotics group (8 faculty members, 9 PhD students on Oct. 1st, 2013)
— Member of Biom'@x, the steering committee of biomedical applications at FEMTO-ST since 2011

4 International exchanges

4.1 Visits to foreign research centers

[only **long** stays are listed]

Fraunhofer IITB Karlsruhe Pr. H.-H. Nagel (2 months) July-August 2008
Exchange within the FP4 Esprit Project VIGOR (no. 26247)

Lunds Tekniska Högskola Pr. B. Wittenmark (full academic year) 1993-1994
Student exchange within the Erasmus program

4.2 Visitors

Invited professors : A. Menciassi (SSSA Pisa, Italy, 1 month, 2013), S. Martel (Poly Montréal, Qc, 1 month, 2014)

Faculty members : R. Johansson (Lund TH, Sweden, 2001), A. Robertsson (Lund TH, Sweden, 2003), S. Dubowsky (MIT, USA, 2007), B. Shirinzadeh (Monash Univ., Australia, 2008), L. De Mattos (IIT, Italy, 2013),

Ph.D. students : I. Dressler (Lund, Sweden, 1 week, 2005), S. Bellakehal (Laghout, Algeria, 18 months, 2006), B. Münske (Hannover, Germany, 1 week, 2012), A. Schoob & D. Kundrat (Hannover, 1 week, 2013).

4.3 Erasmus bilateral agreements

IFMA–LTH Sweden (2003–2009), IFMA–Chalmers Sweden (2003–2009), UFC-Uni. Lübeck Germany (2011–2014)

2. GdR Rob is the French academic and industrial network on robotics

5 Reviewing activity

International funding programmes :

— Call FNRS-MINCyT (Belgium/Argentina mobility), 2013
— Call Grants and Fellowships (FNRS, Belgium), 2012
— Ex-post reviewer of the Région Wallone (Belgium) SENSENDO project, related to Medical Robotics, 2011
— Participation to the FP7-ICT "Cognitive Systems and Robotics" evaluation panel, 2009

French funding programmes :

— Sollicitations declined in 2009 (national protestation) and 2013 (conflict of interest)
— Jeunes Chercheurs/ses (Young Scientist) 2008
— Systèmes Interactifs et Robotique (PSIROB) 2006, 2007

Member of tenure-track selection committees :

Clermont-Ferrand (MCF, 2003-2009), Strasbourg (MCF, 2010), Besançon (Professor, 2011), Besançon (MCF, 2012, 2013, 2015), Montpellier (MCF, 2013)

Member of 2 Habilitation (HDR) examination boards :

— A. Krupa (2012), S. Dembélé (2013)

Member of 20 Ph.D. examination boards :

— in France [3] :
R. Rizk (2006), I. Herrera* (2007), D. Corbel* (2008), N. Binaud° (2010), G. Caron* (2010), J. Hubert* (2010), M. Rognant* (2010), N. Riehl° (2011), C. Pacoret* (2011), F. Alkhalil* (2012), A. Gauvin* (2012), G. Sartori Natal* (2012), S. Abdelaziz* (2012), L. Rubbert* (2012), A. Abou Moughlbay* (2013), T. Gayral*° (2013), M. Guillo* (2014), L. Magerand* (2014), G. Pagis* (2014)
— in Lund (Sweden) : T. Olsson (2007), M. Linderoth (Licentiat, 2011 and PhD, 2013)

Associate editor for international conferences :

ICRA (2013, 2014, 2015), ICINCO (2014)

Reviewer for international journals :

IJRR, IEEE ITRA/TRO, IEEE TCST, MechMT, Robotica, UOPT, IJMS, IMechE

Reviewer for international conferences :

ICRA, IROS, ICINCO, AIM, ISOT

6 Funding ID : participation to research projects

— European Programmes

μRALP 2012-2015 (FP7 STREP no. 288663) *Micro-Technologies and Systems for Robot-Assisted Laser Phonomicrosurgery*

Coordinator : IIT Genova - Number of partners : 6 - Budget for FEMTO-ST : 622k€

Role in the project : Initiator of the consortium, Scientific Co-Coordinator of the whole project and Principal Investigator at FEMTO-ST.

NEXT 2006-2009 (FP6 IP no. 0011815) *Next generation production systems* Coordinator : Fatronik - Number of partners : 15 - Budget for LASMEA : 180k€

Role in the project : Scientific key person at LASMEA.

Rejected applications : Marie Curie IEF (Waiting list, 2009), ERC Starting Grant (2010, 2012), Erasmus Mundus Masters Course (2012)

3. * : Rapporteur/Reviewer — ° : Président du jury/Chairman

— National Programmes

NEMRO 2015-2018 (ANR Innovation Biomédicale no. ANR-14-CE17-0013) *Microrobotic nasal endoscopy by OCT : impact of smell deficiency on neurodegenerative diseases*

Coordinator : FEMTO-ST - Number of partners : 4 - Total budget : 500k€

Role in the project : Simple participant

ACTION 2012-2019 (ANR Labex no. ANR-11-LABX-0001) *Smart systems embedded into matter*

Coordinator : FEMTO-ST - Number of partners : 3 - Total budget : 10M€/yr

Role in the project : Member of the Executive Committee in quality of Scientific Leader of Demonstrator 4 "Active spectral OCT endomicroscope"

CoGiRo 2010-2013 (ANR ARPEGE no. ANR-09-SEGI-018) *Control of Giant Robots*

Coordinator : LIRMM - Number of partners : 4 - Budget for LASMEA : 303k€

Role in the project : It should have been Principal Investigator at LASMEA, but this role was reduced to simple participant because of N. Andreff's change of position.

VIRAGO 2007-2011 (ANR JCJC[4] no. 07-JCJC-0175-01) *New perspectives in robotics opened by high-speed vision and rolling shutter*

Coordinator : LASMEA - Number of partners : 1 - Budget : 190k€

Role in the project : Principal Investigator.

MP2 2003-2005 (CNRS ROBEA) *Machines Parallèles et Précision*

Coordinator : LIRMM - Number of partners : 6 - Budget : 30k€

Role in the project : Scientific key person at LASMEA.

MAX 2001-2003 (CNRS ROBEA) *Machines à Architecture compleXe : de la conception à la performance et à l'autonomie*

Coordinator : LIRMM - Number of partners : 6 - Budget : 30k€

Role in the project : Participant and financial manager at LaRAMA.

Rejected applications : ANR Blanc on robotically-steered microcapsules (2011, 2012, 2013)

4. ANR JCJC "Young Scientist" ≈ ERC Starting Grant but limited to 4 years and 50k€/year

7 Supervision at graduate and post-graduate levels

Post-doc

Fellow	Subject	Date
O. Ait-Aider MCF, Clt-Fd	High-speed vision for dynamic identification	2004–2006

Ph.D. students

Student	Subject	Date	Supervised by
G. Cottez	OCT, compressive sensing and visual servoing	2015–...	N. Andreff (dir.) 30% B. Tamadazte 40% S. Chrétien 30%
B. Dahroug	Microrobot-assisted cholesteatoma surgery	2014–...	N. Andreff (dir.) 30% B. Tamadazte 50% L. Tavernier 10% S. Weber 10%
A. Oulmas	Design and control of multi-flagella magnetic capsules	2014–...	S. Régnier (dir.) 70% N. Andreff 30%
M. Ourak	OCT-based visual servoing	2013–...	N. Andreff (dir.) 30% B. Tamadazte 70%
M.T. Chikhaoui	Embedded actuation on deformable tube : application to continuum robots continus for active endomicroscopes	2013–...	N. Andreff (dir.) 30% K. Rabenorosoa 70%
S. Lescano	Design and control of an out-of-plane parallel kinematics micromechanism	2012–...	N. Andreff (dir.) 50% M. Rakotondrabe 50%
B. Véron Post-Doc Grenoble	Multi-Mobile Coil Magnetic Manipulation of Endoscopic Capsules	2011–2014	N. Andreff (dir.) 40% A. Hubert 30% J. Abadie 30%
T. Xu Post-doc Chinese University of Hong Kong	Micro-helical swimmer steering with rotating magnetic fields	2010–2014	S. Régnier (dir.) 30% G. Hwang 30% N. Andreff 30%
E. Özgür Post-doc Clermont-Ferrand	From Lines To Dynamics of Parallel Robots	2008–2012	N. Andreff (dir.) 70% P. Martinet 30%
A. Benzerrouk Post-doc Clermont-Ferrand	Hybrid control architecture for multi-robot systems : Application to multi-robot platoon navigation	2007–2011	N. Andreff (dir.) 30% L. Adouane 40% P. Martinet 30%
R. Dahmouche MCF Besançon	Dynamic control of PKM using rolling shutter cameras	2006–2010	N. Andreff (dir.) 40% Y. Mezouar 30% P. Martinet 30%
F. Paccot PRAG Clermont-Ferrand	Dynamic control of PKM	2005–2008	N. Andreff 70% P. Martinet (dir.) 30%

T. Dallej Post-doc Clermont-Ferrand	Visual servoing of PKM through leg observations	2004–2007	N. Andreff 70% P. Martinet (dir.) 30%
H. Hadj-Abdelkader MCF Evry	Omnidirectional visual servoing	2003–2006	P. Martinet (dir.) 30% Y. Mezouar 40% N. Andreff 30%
P. Renaud Professor Strasbourg	Kinematic calibration of PKM	2000–2003	G. Gogu (dir.) 20% P. Martinet 30% N. Andreff 50%

Master

Student	Subject	Date
V. Lehoussel	Mechatronic design of a magnetic manipulation system with mobile coils	2011
B. Véron	Simulation and control of a magnetic manipulation system with mobile coils	2011
E. Prachittham	Calibration of endoscopic capsule localization systems	2011
F. Paccot	Dynamic control of Isoglide4-T3R1	2005
A. Marchadier	Visual servoing of the Gough-Stewart platform through leg observations	2004
J. Yun	Vision-based kinematic calibration of PKM	2004
A. Sahli	Vision-based calibration of H4	2003
S. Ronchi	Inertial parameters identification for manipulators	2002
A. Abadja	Inertial parameters identification for manipulators	2002
R. Lenain	Automatic guidance of farming vehicles	2002

8 Publications

Period	Books	Book chapters	International Journals	International Conferences	International Workshops	Others
1996–2000				3	1	2
2001–2009		2	13	38	3	10
2010–...	1	2	5	12	9	2
Total	1	4	18	53	13	14

– Invited seminars

— 9th French-Mexican Summer School on Image and Robotics, Clermont-Ferrand, 2008
— Field and Service Research Center (S. Lee) at Sunkyunkwan University, South Korea, 2007
— Robotics lab (F.C. Park) at Seoul National University, South Korea, 2007
— Department of Automatic control, Lund, Sweden, 2007, 2011
— EURON Summer School on Visual Servoing, Benicasim, Spain, 2002

– Prizes and awards

— Honorable Mention from the jury of the Microns d'Or prize at MICRONORA, the International Industrial Fair on Microtechnologies, Besançon, 2014.

— Finalist to the Best Paper Award at the International Conference of Advanced Intelligent Mechatronics, Wollongong, 2013, for the paper [CI_53]
— Best Theoretical Research Paper Award at the European Conference on Mechanism Science, Santander, 2012 for the paper [CI_48]
— Honorable Mention Paper Award at the European Conference on Computer Vision, Graz, 2006 (acceptance rate $< 4\%$ for oral presentations) for the oral presentation [CI_19].
— PEDR (2004, 2008) then PES (2012), 4-yearly grant awarded on scientific activity criteria in a nationwide competitive basis.
— CRCT and Délégation CNRS fellowships (both in 2009), awarded (on a nationwide competitive basis) for a one-year stay at Ecole de Technologie Supérieure, Montréal. Declined in favor of the Full Professor position.

Books

[B_1] M. Gauthier, N. Andreff, and E. Dombre. *Intracorporeal robotics : from milliscale towards nanoscale.* Wiley, May 2014. ISBN : 978-1-84821-371-5.

Book chapters

[BC_1] N. Andreff and B. Espiau. Revisiting Plücker coordinates in vision-based control. In J. Lenarcic and F. Thomas, editors, *Advances in Robot Kinematics. Theory and Applications.*, pages 265–274. Springer, 2002.

[BC_2] R. Rizk, N. Andreff, J.C. Fauroux, J.M. Lavest, and G. Gogu. Precision study of a decoupled four degrees of freedom parallel robot including manufacturing and assembling errors. In S. Tichkiewitch, M. Tollenaere, and P. Ray, editors, *Advances in Integrated Design and Manufacturing in Mechanical Engineering II*, pages 111–128. Springer, 2007.

[BC_3] B. Véron, A. Hubert, J. Abadie, and N. Andreff. Magnetic manipulation with several mobile coils towards gastrointestinal capsular endoscopy. In F. Viadero and M. Ceccarelli, editors, *New Trends in Mechanism and Machine Science. Theory and Applications in Engineering.*, pages 681–690. Springer, 2012.

[BC_4] M.T. Chikhaoui, K. Rabenorosoa, and N. Andreff. Kinematic modeling of an eap actuated continuum robot for active micro-endoscopy. In J. Lenarcic and Oussama Khatib, editors, *Advances in Robot Kinematics.*, pages 457–465. Springer, 2014.

International journals

[RI_1] N. Andreff, R. Horaud, and B. Espiau. Robot hand-eye calibration using structure from motion. *International Journal of Robotics Research*, 20(3) :228–248, March 2001.

[RI_2] N. Andreff, B. Espiau, and R. Horaud. Visual servoing from lines. *International Journal of Robotics Research*, 21(8) :679–700, August 2002.

[RI_3] N. Andreff, P. Renaud, P. Martinet, and F. Pierrot. Vision-based kinematic calibration of an H4 parallel mechanism : practical accuracies. *Industrial Robot : An international journal*, 31(3) :273–283, May 2004.

[RI_4] C. Azevedo, N. Andreff, and S. Arias. BIPedal walking : from gait design to experimental analysis. *Mechatronics*, 14(6) :639–665, 2004.

[RI_5] P. Renaud, N. Andreff, Ph. Martinet, and G. Gogu. Kinematic calibration of parallel mechanisms : A novel approach using legs observation. *IEEE Transactions on Robotics*, 21(4) :529–538, August 2005.

[RI_6] N. Andreff and P. Martinet. Unifying kinematic modeling, identification and control of a Gough-Stewart parallel robot into a vision-based framework. *IEEE Transactions on Robotics*, 22(6) :1077–1086, December 2006.

[RI_7] D. Daney, N. Andreff, G. Chabert, and Y. Papegay. Interval method for calibration of parallel robots : A vision-based experimentation. *Mechanism and Machine Theory, Special Issue on CK 2005, International Workshop on Computational Kinematics*, 41(8) :929–944, 2006.

[RI_8] P. Renaud, N. Andreff, J.-M. Lavest, and M. Dhome. Simplifying the kinematic calibration of parallel mechanisms using vision-based metrology. *IEEE Transactions on Robotics*, 22(1) :12–22, February 2006.

[RI_9] P. Renaud, A. Vivas, N. Andreff, P. Poignet, P. Martinet, F. Pierrot, and O. Company. Kinematic and dynamic identification of parallel mechanisms. *Control Engineering Practice*, 14(9) :1099–1109, 2006.

[RI_10] N. Andreff, T. Dallej, and P. Martinet. Image-based visual servoing of a Gough-Stewart parallel manipulator using leg observations. *International Journal of Robotics Research. Special Issue on Vision and Robotics – Joint with the International Journal on Computer Vision*, 26(7) :677–687, July 2007.

[RI_11] N. Andreff and P. Martinet. Vision-based self-calibration and control of parallel kinematic mechanisms without proprioceptive sensing. *Intelligent Service Robotics*, 2(2) :71–80, 2009.

[RI_12] F. Paccot, N. Andreff, and P. Martinet. A review on dynamic control of parallel kinematic machines : theory and experiments. *International Journal of Robotics Research*, 28(3) :395–416, March 2009.

[RI_13] O. Tahri, Y. Mezouar, N. Andreff, and P. Martinet. Omnidirectional visual-servo of a Gough-Stewart platform. *IEEE Transactions on Robotics*, 25(1) :178–184, February 2009.

[RI_14] S. Bellakehal, N. Andreff, Y. Mezouar, and M. Tadjine. Force/position control of parallel robots using exteroceptive pose measurements. *Meccanica*, 46 :195–205, 2011.

[RI_15] S. Bellakehal, N. Andreff, Y. Mezouar, and M. Tadjine. Vision/force control of parallel robots. *Mechanism and Machine Theory*, 46(10) :1376–1395, oct 2011.

[RI_16] R. Dahmouche, N. Andreff, Y. Mezouar, O. Ait-Aider, and P. Martinet. Dynamic visual servoing from sequential regions of interest acquisition. *International Journal of Robotics Research*, 31(4) :520–537, April 2012.

[RI_17] T. Xu, G. Hwang, N. Andreff, and S. Régnier. Modeling and swimming property characterizations of scaled-up helical microswimmers. *IEEE/ASME Transactions on Mechatronics*, 19(3) :1–11, 2013.

[RI_18] E. Özgür, N. Andreff, and P. Martinet. Linear dynamic modeling of parallel kinematic manipulators from observable kinematic elements. *Mechanism and Machine Theory*, 69 :73–89, 2013.

[RI_19] A. Schoob, D. Kundrat, L. Kleingrothe, L. A. Kahrs, N. Andreff, and T. Ortmaier. Tissue surface information for intraoperative incision planning and focus adjustment in laser surgery. *International Journal of Computer Assisted Radiology and Surgery*, pages 1–11, 2014.

[RI_20] T. Xu, S. Régnier, N. Andreff, and G. Hwang. Planar path following of 3d steering scaled-up helical microswimmers. *IEEE Transactions on Robotics*, 2015. To appear.

National journals

[RN_1] S. Bellakehal, N. Andreff, Y. Mezouar, and M. Tadjine. Commande vision/force de robots parallèles. *Journal Européen des Systèmes Automatisés*, 44(8) :887–911, 2010.

International conferences

[CI_1] N. Andreff, R. Horaud, and B. Espiau. On-line hand-eye calibration. In *Second International Conference on 3-D Digital Imaging and Modeling (3DIM'99)*, pages 430–436, Ottawa, October 1999.

[CI_2] N. Andreff, B. Espiau, and R. Horaud. Visual servoing from lines. In *IEEE Int. Conf. on Robotics and Automation (ICRA'00)*, San Francisco, California, USA, 2000.

[CI_3] B. Lamiroy, B. Espiau, N. Andreff, and R. Horaud. Controlling robots with two cameras : How to do it properly. In *IEEE Int. Conf. on Robotics and Automation (ICRA'00)*, San Francisco, California, USA, 2000.

[CI_4] N. Andreff and B. Espiau. Revisiting Plücker coordinates in vision-based control. In *8th International Symposium on Advances in Robot Kinematics (ARK'2002)*, Caldes de Malavella, Spain, June 2002.

[CI_5] C. Azevedo, N. Andreff, S. Arias, and B. Espiau. Experimental BIPedal walking. In *8th International Symposium on Experimental Robotics (ISER'02)*, Sant' Angelo d'Ischia, Italy, July 2002.

[CI_6] P. Renaud, N. Andreff, M. Dhome, and Ph. Martinet. Experimental evaluation of a vision-based measuring device for parallel machine-tool calibration. In *IEEE/RSJ Int. Conf. on Intelligent Robots and Systems (IROS 2002)*, pages 1868–1873, Lausanne, CH, october 2002.

[CI_7] P. Renaud, N. Andreff, G. Gogu, and Ph. Martinet. Dynamic identification of mechanisms using a robust design of experiments. In *4th International Conference on Integrated Design and Manufacturing in Mechanical Engineering (IDMME'2002)*, Clermont-Ferrand, France, May 2002.

[CI_8] P. Renaud, N. Andreff, G. Gogu, and M. Dhome. Optimal pose selection for vision-based kinematic calibration of parallel mechanisms. In *IEEE/RSJ Int. Conf. on Intelligent Robots and Systems (IROS 2003)*, volume 3, pages 2223–2228, Las Vegas, USA, October 2003.

[CI_9] P. Renaud, N. Andreff, G. Gogu, and Ph. Martinet. On vision-based kinematic calibration of n legs parallel mechanisms. In *13th IFAC Symposium on System Identification (SYSID 2003)*, pages 977–982, Rotterdam, The Netherlands, 27-29 August 2003.

[CI_10] P. Renaud, N. Andreff, F. Marquet, and Ph. Martinet. Vision-based kinematic calibration of a H4 parallel mechanism. In *IEEE Int. Conf. on Robotics and Automation (ICRA 2003)*, pages 1191–1196, Taiwan, September 2003.

[CI_11] P. Renaud, N. Andreff, G. Gogu, and Ph. Martinet. On vision-based kinematic calibration of a Stewart-Gough platform. In *11th World Congress in Mechanism and Machine Science (IFToMM2004)*, pages 1906–1911, Tianjin, China, April 1-4 2004.

[CI_12] P. Renaud, N. Andreff, S. Krut, and G. Gogu. Kinematic calibration of linear-actuated parallel mechanisms from leg observation. In *35th International Symposium on Robotics (ISR'04)*, Paris, France, April 2004.

[CI_13] P. Renaud, N. Andreff, F. Pierrot, and P. Martinet. Combining end-effector and legs observation for kinematic calibration of parallel mechanisms. In *IEEE Int. Conf. on Robotics and Automation (ICRA'04)*, pages 4116–4121, New Orleans, USA, April 26 - May 1st 2004.

[CI_14] N. Andreff, A. Marchadier, and P. Martinet. Vision-based control of a Gough-Stewart parallel mechanism using legs observation. In *IEEE Int. Conf. Robotics and Automation (ICRA'05)*, pages 2546–2551, Barcelona, Spain, April 18–22 2005.

[CI_15] N. Andreff and P. Martinet. Visually servoing a Gough-Stewart parallel robot allows for reduced and linear kinematic calibration. In *Int. Conf. on Informatics in Control, Automation and Robotics (ICINCO'05)*, volume 3, pages 119–124, Barcelona, Spain, September 14–17 2005.

[CI_16] H. Hadj Abdelkader, Y. Mezouar, N. Andreff, and P. Martinet. 2 1/2D visual servoing with central catadioptric cameras. In *IEEE/RSJ Int. Conf. on Intelligent Robots and Systems (IROS 2005)*, pages 2342–2347, Edmonton, Canada, August 2-6 2005.

[CI_17] H. Hadj Abdelkader, Y. Mezouar, N. Andreff, and P. Martinet. Image-based control of mobile robot with central catadioptric cameras. In *IEEE Int. Conf. Robotics and Automation (ICRA'05)*, pages 3533–3538, Barcelona, Spain, April 18–22 2005.

[CI_18] O. Ait-Aider, N. Andreff, J.M. Lavest, and P. Martinet. Pose and velocity computing of fast moving object using a single view from rolling shutter camera. In *4th IEEE International Conference on Computer Vision Systems, (ICVS'06)*, New-York City, USA, January 5-7th 2006.

[CI_19] O. Ait-Aider, N. Andreff, J.M. Lavest, and P. Martinet. Simultaneous object pose and velocity computation using a single view from a rolling shutter camera. In *9th European Conference on Computer Vision (ECCV'06)*, volume 2, pages 56–68, Graz, Austria, May 7-13 2006. **Honorable Mention Paper Award**.

[CI_20] O. Ait-Aider, N. Andreff, P. Martinet, and J.M. Lavest. Simultaneous pose and velocity measurement for high-speed robots. In *IEEE International Conference on Robotics and Automation (ICRA'06)*, Orlando, Florida, USA, May 15-19 2006.

[CI_21] O. Ait-Aider, F. Paccot, N. Andreff, and P. Martinet. A novel approach to vision-based computed torque control of parallel robots. In *12th IEEE International Conference on Methods and Models in Automation and Robotics (MMAR 2006)*, Miedzyzdroje, Poland, August 2006.

[CI_22] N. Andreff, T. Dallej, and P. Martinet. Image-based visual servoing of Gough-Stewart parallel manipulators using legs observation. In *8th International IFAC Symposium on Robot Control (SYROCO 2006)*, Bologna, Italy, September 2006.

[CI_23] N. Andreff and P. Martinet. Vision-based kinematic modelling of some parallel manipulators for control purposes. In *1st European Conference on Mechanism Science (EuCoMeS'06)*, Obergurgl, Austria, February 21-26 2006.

[CI_24] T. Dallej, N. Andreff, and P. Martinet. 3D pose visual servoing is the canonical choice for the Cartesian control of parallel robots. In *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS'06)*, Beijing, China, October 2006.

[CI_25] T. Dallej, N. Andreff, and P. Martinet. Visual servoing of Par4 using leg observation. In *32nd Annual Conference of the IEEE Industrial Electronics Society (IECON'06)*, Paris, France, November 2006.

[CI_26] T. Dallej, H. Hadj-Abdelkader, N. Andreff, and P. Martinet. Kinematic calibration of a Gough-Stewart platform using an omnidirectional camera. In *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS'06)*, 2006.

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