Curriculum Vitæ

INRIA Grenoble – Rhône-Alpes, 655 Avenue de l'Europe, 38330 Montbonnot St Martin, France Tel: +33 456 527 133

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Education

HdR (Habilitation à diriger des Recherches) in Computer Science, 2006.

INPG (National Polytechnical Institute of Grenoble), France.

Committee: Roger Mohr (INPG, France), Kostas Daniilidis (U Penn, USA), Michel Dhome (LASMEA, France), Jean Ponce (U Illinois, USA), Luc Van Gool (Leuven and Zürich), Richard Hartley (ANU, Australia), Radu Horaud (INRIA, France), Long Quan (HKUST, China).

PhD in Computer Science, INPG (National Polytechnical Institute of Grenoble), France, 1997.

Supervisor: Long QUAN.

Committee: Roger Mohr (INPG, France), Olivier Faugeras (INRIA, France), Andrew Zisserman (Oxford, UK), Stephen Maybank (Reading, UK), Long Quan (CNRS, France), Radu Horaud (CNRS, France).

DEA (~ Master) in Computer Science, INPG (National Polytechnical Institute of Grenoble), France, 1994.

Hauptdiplom Informatik, University of Karlsruhe, Germany, 1994.

Professional Experience

2006–today	Directeur de Recherche (\sim Professor), INRIA, France.
2009-2011	Sabbatical, TU München, Germany.
1999-2006	Chargé de Recherche, INRIA, France.
1997–1999	Research Fellow, Computer Science Department, University of Reading, UK.
1990-1997	Company founder and owner, development and marketing of software.
1989-1993	Scientific assistant, Telematics Institute, University of Karlsruhe, Germany.

Awards and Honors

- Scholarship for experienced researchers, Alexander-von-Humboldt Foundation (2009–11, 18 months).
- SPECIF PhD Award 1998 (French Society of Computer Science Lecturers and Researchers). Awarded annually to one PhD thesis in Computer Science defended in France.
- CRS Industrial Prize at BMVC 2008, for the paper "Minimizing the Multi-view Stereo Reprojection Error for Triangular Surface Meshes", by Amaël Delaunoy, Emmanuel Prados, Pau Gargallo, Jean-Philippe Pons, and Peter Sturm.
- Patron of the first annual meeting and graduation ceremony of the VIBOT Erasmus Mundus international Masters programme, Le Creusot, France, 2008.
- Outstanding reviewer award, IEEE Conference on Computer Vision and Pattern Recognition, Anchorage, Alaska, 2008.
- Best reviewer award, Asian Conference on Computer Vision, Tokyo, Japan, 2007.

Teaching

- Master course (with practicals) on Visual Computing, University of Grenoble, since 2011.
- Master course (with practicals) on Computer Vision, University of Grenoble, 2011.
- Postgraduate course on Generic Camera Models and 3D Computer Vision, Oulu (Finland), 2010.
- Postgraduate course on 3D Computer Vision, Zaragoza (Spain), 2005, '06, '07.
- Master course on 3D Computer Vision, INPG (Natl. Polytechnical Institute Grenoble, France), since 2000.
- Master course on Numerical Optimization, INPG, 2000–06.
- Bachelor course on Computer Vision, Grenoble, 1999/2000.
- Master course on Image Processing and Vision, Reading (UK), 1998/99.
- Practicals (programming in C, Pascal, Assembler), Technical University Karlsruhe (Germany), 1990–93.
- President of MSc project committees, INPG, 2004.
- Member of numerous committees for MSc and BSc projects.

Administrational Responsabilities

- Member of the Scientific Committee of INRIA Grenoble, since 2011.
- Director of the "Geometry and Images" department of the Laboratoire Jean Kuntzmann (http://www-ljk.imag.fr/), 2008+09. The department consisted, at that time, of five research groups in computer vision, graphics, and geometric modelling.
- Elected member of the Council of Laboratoire Jean Kuntzmann, 2007–08 (2008+09 nominated member, being department director).
- President of the scientific recruitment committee of INRIA Grenoble, 2007–09. The committee intervenes, among others, in the selection for the INRIA postdoc programme and of visiting professors (délégations and détachements).
- President of the national INRIA working group on "Actions Incitatives", 2007–10. The working group
 intervenes in the selection process and evaluation of various funding programmes of INRIA (funding of
 research and software development programmes).
- Member of the CLHS of INRIA Grenoble (Local Committee for Hygiene and Security), 2000–09.
- Member of the CUMI of INRIA Grenoble (Committee of Computing Equipment Users), 2001–04.

Service to the Scientific Community

- Chairman of the award committee for the AFRIF PhD thesis award (French Association for Pattern Recognition and Interpretation), 2012 and 2013.
- Co-chairman of the Working Group III/1 "Automatic Calibration and Orientation of Optical Cameras" of the ISPRS (International Society for Photogrammetry and Remote Sensing), 2004-08.
- Chairman of the Working Group "Imaging and Geometry" of the GdR ISIS (a French research network), 2006–12.
- Member of the Committee of the PhD thesis award of SPECIF (French Society of Computer Science Lecturers and Researchers), 2000, '01 and '02.
- Member of the "Task Group Single Images in Conservation" of the CIPA (International Committee for Architectural Photogrammetry).

Grants, Projects

European Projects

• MREP CAMERA (2012–13), Principal Investigator for INRIA.

Partners: European Space Agency, EADS ASTRIUM (France), DEIMOS (Portugal), TNO (Netherlands), Sodern (France), NGC Aerospace (France).

Main goal: modeling of planetary surfaces and detection of potential landing zones.

• ITI-3D (2010–11), Principal Investigator for INRIA.

Partners: European Space Agency and EADS ASTRIUM, Toulouse.

Main goal: 3D modeling of asteroids from images acquired by a spacecraft.

• VISIRE (IST, 2000–03), Principal Investigator for INRIA.

Partners: Eptron SA (Spain, coordinator), Lund University (Sweden), Polytechnical University of Madrid (Spain), Giunti Multimedia SA (Italy), INRIA Grenoble (France).

Main goal: 3D modeling from image sequences.

• CUMULI (LTR, 1996 & 97), Collaborator.

Partners: INRIA Grenoble (coordinator), INRIA Sophia-Antipolis, Fraunhofer-IGD (Germany), Lund University (Sweden), Imetric SA (Switzerland), Image Systems AB (Sweden).

Main goal: Computational understanding of multiple images in computer vision and photogrammetry.

Bilateral Projects

- France-Venezuela (ECOS Nord programme, IDDRI, INRIA, Modelistica and U. Caracas, 2012–14).
- France–Portugal (PHC programme, INRIA and Coimbra University, 2009+10).
- France–UK (Alliance programme, INRIA and Kingston University, 2001+02).
- UK-Spain (Acciones Integradas, Reading and Zaragoza Universities, 1999).
- France–Germany (Procope, INRIA and Karlsruhe University, 1996+97).
- France-Czech Republic (Tempra programme, INRIA and Prague Technical University, 1996).
- France-China (PRA programme, Xidian University 1997+98 and 2001+02; NLPR Beijing 2000).

National Projects

• CITiES (ANR programme, 2013–16), Collaborator.

Partners: MOISE (INRIA Grenoble), IRTES-SeT (University of Technology, Belfort-Montbéliard), IFSTTAR-DEST (Paris), LET (Lyon), IDDRI (Paris), LVMT (Paris), Vinci / Pirandello Ingénierie (Paris), IAU Ile-de-France (Institute for Urban Planning and Development).

Our main goals: calibration and sensitivity analysis of LUTI (Land Use and Transport Integrated) models, as well as validation using data for different French cities.

• ESNET (FRB – Fondation pour la Recherche sur la Biodiversité – and ONEMA – Office National de l'Eau et des Milieux Aquatiques, 2013 – 15), Collaborator.

Partners: LECA (Laboratoire d'Ecologie Alpine Grenoble, coordinator), EDDEN (Team Economie, développement durable et énergie, UPMF Grenoble), IRSTEA Grenoble, PACTE (Politiques publiques, Action politique, Territoires, Grenoble), ERIC (Equipe de Recherche en Ingénierie des Connaissances, Lyon).

Our main goals: establishing land cover inventories for different peri-urban and rural areas around Grenoble and conceiving models for land cover change across time.

• DECSA (DGA, 2011–15), Principal Investigator for INRIA Grenoble. Our main goal: real-time stereo.

• ROM (ANR programme, France, 2009–11), Principal Investigator for INRIA.

Partners: Duran Duboi (Coordinator), IRI Toulouse.

Main goal: Preparation of complex camera shootings, real-time on-set matchmoving.

• FLAMENCO (ANR programme, France, 2007–10), Collaborator.

Partners: INRIA Grenoble (Coordinator), ENPC (Ecole Nationale des Ponts et Chaussées).

Main goal: Spatiotemporal modeling of objects and recovery of reflectance properties, from videos.

• CAVIAR (ANR programme, France, 2005–09), Principal Investigator for INRIA.

Partners: CREA (Amiens, coordinator), LAAS Toulouse, LE2I Le Creusot, INRIA Sophia-Antipolis, INRIA Grenoble.

Main goal: Using omnidirectional vision for controlling aerial robots.

ParkNav (ROBEA programme, France, 2002–06), Principal Investigator for the MOVI group at INRIA.
 Partners: INRIA Grenoble (3 groups: eMotion, PRIMA, MOVI), INRIA Rennes, LAAS Toulouse.
 Main goal: Trajectory planning for vehicles manoeuvering in dynamic environments.

• CALIPSO (GdR ISIS programme, France, 2000–03), Principal Investigator for INRIA. Partners: IRIT (Institut de Recherche en Informatique de Toulouse, France), INRIA (France).

Main goal: Camera self-calibration.

• VECTOR (EPSRC, UK, 1997–99), Research Fellow.

Institution: Reading University (UK).

Main goal: 3D modelling and object recognition from image sequences.

Industry-Funded Projects

• EADS ASTRIUM, Toulouse (2007–10).

Main goal: High-precision mosaicing for satellite imagery.

• Thales Optronique, Guyancourt (2003–06).

Main goal: Object tracking in image sequences.

Expert for Project or Promotion Evaluations

- The European Commission.
- EUREKA / Eurostars programme of the European Union.
- Member of the Standing Committee of External Evaluators for the Italian Institute of Technology.
- French National Research Agency (ANR).
- Réseau de Recherche et Innovation en Audiovisuel et Multimédia (RIAM), France.
- PRES Paris Sud (France).
- Burgundy Region (France).
- Lorraine Region (France).
- Danish Council for Strategic Research.
- Agencia Nacional de Evaluación y Prospectiva (ANEP), Spain.
- Endeavour Executive Awards, Australia.
- Wiener Wissenschafts-, Forschungs- und Technologiefonds, Austria.
- Research Promotion Foundation (RPF) of Cyprus.

- University Research Board of the American University of Beirut.
- The Chinese University of Hong Kong.
- Peking University.
- Carnegie Mellon University, Pittsburgh.
- The University of Hong Kong.

Membership in Scientific Councils

- Barcelona Media Technology Centre.
- MSTIC Pole of Grenoble University, federating the local mathematics and computer science and technology research.
- Université Joseph Fourier, Grenoble (substitute member).

Membership in Recruitment Committees

- Professorship at Université d'Auvergne, 2012.
- Professorship at Université d'Evry, 2012.
- Associate Professorship at Université d'Auvergne, 2010.
- Permanent researchers (Chargés de Recherche 2me classe) at INRIA Grenoble, 2008.

Editorial Activities

Editorial Boards of International Journals

- PAMI IEEE Transactions on Pattern Analysis and Machine Intelligence, since 2012.
- JMIV Journal of Mathematical Imaging and Vision, since 2009.
- IVC Image and Vision Computing, since 2006.
- JCST Journal of Computer Science and Technology, 2007–12.
- CVA IPSJ (Information Processing Society Japan) Trans. Computer Vision & Applications, 2008–12.
- IJICC International Journal on Intelligent Computing and Cybernetics, 2007–12.

Guest Editor for Special Journal Issues

- S. Garlatti, P. Sturm, O. Boissier. Special issue of *Revue d'Intelligence Artificielle*, best AI papers of RFIA 2012. Vol. 27, No. 1, 2013.
- P. Sturm, S. Garlatti. Special issue of *Traitement du Signal*, best pattern recognition and computer vision papers of RFIA 2012. Vol. 29, No. 3/4/5, 2012.
- P. Belhumeur, K. Ikeuchi, E. Prados, S. Soatto, P. Sturm. Special issue of *International Journal of Computer Vision* on Photometric Analysis for Computer Vision, Vol. 86, No. 2/3, 2010.
- P. Sturm, T. Svoboda and S. Teller. Special issue of *Computer Vision and Image Understanding* on Omnidirectional vision and camera networks, Vol. 103, No. 3, September 2006.

Conference Organization

Programme Chair

- 2012: RFIA Congrès de Reconnaissance des Formes et Intelligence Artificielle, Lyon, France.
- 2012: 3DCIA 2nd Workshop on Community Based 3D Contents and Their Application (with ICME), Melbourne, Australia.
- 2011: ICCV IEEE International Conference on Computer Vision, Barcelona, Spain.
- 2011: ORASIS Congrès des jeunes chercheurs en vision par ordinateur, Praz-sur-Arly, France.
- 2007: PACV Workshop Photometric Analysis For Computer Vision (with ICCV), Rio de Jan., Brazil.
- 2007: BenCOS ISPRS/IEEE Workshop Towards Benchmarking Automated Calibration, Orientation and Surface Reconstruction from Images (with CVPR), Minneapolis, USA.
- 2006: BIRS Workshop on Mathematical Methods in Computer Vision, Banff International Research Station (BIRS) Alberta, Canada.
- 2005: BenCOS ISPRS/IEEE Workshop Towards Benchmarking Automated Calibration, Orientation and Surface Reconstruction from Images (with ICCV), Beijing, China.
- 2004: OMNIVIS 5th Workshop on Omnidirectional Vision, Camera Networks and Non-Classical Cameras (with ECCV), Prague, Czech Republic.

Organization Chair

• 2008: ECCV – European Conference on Computer Vision, Marseille, France.

Honorary Chair

• 2009: Workshop on Community Based 3D Content and Its Applications In Mobile Internet Environments (with ACCV), Xi'an, China.

Tutorial Chair

• 2009: ICCV – IEEE International Conference on Computer Vision, Kyoto, Japan.

Conference Programme Committees

Area Chair and Assimilated

- 2014: IROS IEEE/RSJ Int. Conf. on Intelligent Robots and Systems, Chicago, USA (Associate Editor).
- 2012: ECCV European Conference on Computer Vision, Florence, Italy.
- 2012: ICPR International Conference on Pattern Recognition, Tsukuba, Japan.
- 2011: CVPR IEEE Conf. on Computer Vision and Pattern Recognition, Colorado Springs, USA.
- 2010: ACCV Asian Conference on Computer Vision, Queenstown, New Zealand.
- 2009: ICCV IEEE International Conference on Computer Vision, Kyoto, Japan.
- 2009: CVPR IEEE Conference on Computer Vision and Pattern Recognition, Miami, USA.
- 2009: ACCV Asian Conference on Computer Vision, Xi'an, China.
- 2006: ECCV European Conference on Computer Vision, Graz, Austria.

Programme Committee Member

ICCV	IEEE International Conference on Computer Vision	2003, 05, 07
ECCV	European Conference on Computer Vision	2002, 04
CVPR	IEEE Conference on Computer Vision and Pattern Recognition	2001, 03, 05, 06, 08
RFIA	Congrès de Reconnaissance des Formes et Intelligence Artificielle	2004, 06
ACCV	Asian Conference on Computer Vision	2004, 06, 07
ICPR	International Conference on Pattern Recognition	2000, 02, 06, 08
ICIP	IEEE International Conference on Image Processing	2001, 02, 03, 04, 05, 06
DAGM	Symposium of the German Association for Pattern Recognition	2010
GCPR	German Conference on Pattern Recognition	2013, 14
ISPRS	Congress of the International Society for Photogrammetry	2008, 12
ICHWD	and Remote Sensing	2000
ISUVR	International Symposium on Ubiquitous Virtual Reality	2008
BMVC	British Machine Vision Conference	2004, 05, 06, 07
WMVC	IEEE Workshop on Motion and Video Computing	2007
ICASSP	Int. Conference on Acoustics, Speech and Signal Processing	2002, 03, 04
OMNIVIS	Workshop on Omnidirectional Vision, Camera Networks and Non-classical Cameras	2003, 05, 07, 08, 10, 11
OmniRoboVis	Workshop on Omnidirectional Robot Vision	2010
NORDIA	Workshop on Deformable Objects	2008
AVM	Workshop and Symposium on Advanced Imaging Methods	2009
CIARP	Iberoamerican Congress on Pattern Recognition	2009, 10
DV	Workshop on Dynamical Models for Computer Vision	2005, 06, 07
DEFORM	Workshop on Image Registration in Deformable Environments	2006
3DPVT	Symp. on 3D Data Processing, Visualization and Transmission	2006
VISAPP	Int. Conference on Computer Vision Theory and Applications	2006, 07, 08, 09
IbPRIA	Iberian Conference on Pattern Recognition and Image Analysis	2009
ICVGIP	Indian Conf. Computer Vision, Graphics and Image Proc.	2006, 08, 10
ISVC	International Symposium on Visual Computing	2006, 07, 08
IWCIA	International Workshop on Combinatorial Image Analysis	2009
PCV	Photogrammetric Computer Vision (ISPRS Symposium)	2006, 10
CIPA	Worksh. Vision Techniques Applied to the Rehabilitation of City Centres	2004
GBR	Workshop on Graph-based Representations in Pattern Recognition	2013
ORASIS	Journées Jeunes Chercheurs	2005, 07, 09, 13, 15
SACV	IEEE Workshop on Statistical Analysis in Computer Vision	2003
AmbInt	Workshop on Ambient Intelligence	2003
VECTaR	Workshop on Video Event Categorization, Tagging and Retrieval	2009, 10, 11, 12
SITIS	Int. Conf. on Signal-Image Technology and Internet-Based Systems	2009, 10
VI	Vision Interface Conference	2002
CDC4CV	Workshop on Consumer Depth Cameras for Computer Vision	2011, 12
CVRS	Workshop on Computer Vision for Remote Sensing of the Environment	2011
ICIEV	International Conference on Informatics, Electronics & Vision	2012
QU3ST	Workshop on 2.5D Sensing Technologies in Motion: The Quest for 3D	2012
MobiVis	Workshop on mobile vision and HCI	2012

Reviewing

Journals

- Nature.
- IJCV International Journal on Computer Vision.
- PAMI IEEE Transactions on Pattern Analysis and Machine Intelligence.
- RA IEEE Transactions on Robotics and Automation.
- RO IEEE Transactions on Robotics.
- SMC IEEE Transactions on Systems, Men and Cybernetics.
- MM IEEE Transactions on Multimedia.
- IP IEEE Transactions on Image Processing.
- JOE IEEE Journal of Oceanic Engineering.
- VISP IEE Proceedings Vision, Image & Signal Processing.
- CVIU Computer Vision and Image Understanding.
- IJPRAI International Journal of Pattern Recognition and Artificial Intelligence.
- IVC Image and Vision Computing Journal.
- IET IET Computer Vision.
- MVA Machine Vision and Applications.
- JOSA Journal of the Optical Society of America A.
- JCST Journal of Computer Science and Technology.
- JMIV Journal of Mathematical Imaging and Vision.
- NC Neurocomputing.
- OE Optical Engineering.
- PERS Photogrammetric Engineering and Remote Sensing.
- PR Pattern Recognition.
- PRL Pattern Recognition Letters.
- PRS ISPRS Journal of Photogrammetry and Remote Sensing.
- PhotRec Photogrammetric Record.
- JEI Journal of Electronic Imaging.
- EL Electronics Letters.
- RTI Journal of Real-Time Imaging.
- RAS Robotics and Autonomous Systems.
- SIIMS SIAM Journal on Imaging Sciences.
- TdS Traitement du Signal.
- TVC The Visual Computer.
- IJST Iranian Journal of Science & Technology.
- JACIII Journal of Advanced Computational Intelligence and Intelligent Informatics.
- JVRB Journal of Virtual Reality and Broadcasting.
- MEAS Journal of the International Measurement Confederation.
- OLEN Optics and Lasers in Engineering.
- ZUSC Journal of Zhejiang University Science C (Computers & Electronics).
- PFG Photogrammetrie-Fernerkundung-Geoinformation.
- IJFST International Journal of Food Science and Technology.

Conferences

• SIGGRAPH – Int. Conference on Computer Graphics and Interactive Techniques, 2005.

- IJCAI International Joint Conference on Artificial Intelligence, 2013.
- CVPR IEEE Conference on Computer Vision and Pattern Recognition, 1997, 2000.
- ACIVS Conference on Advanced Concepts for Intelligent Vision Systems, 2007, 2012.
- FSR Int. Conference on Field and Service Robotics, 2005.
- ISMAR Int. Symposium on Mixed and Augmented Reality, 2003.
- ICRA IEEE Int. Conference on Robotics and Automation, 2003, 2007, 2009, 2011.
- EG Eurographics Conference, 2002.
- ICCV IEEE International Conference on Computer Vision, 1998, 1999, 2001.
- ECCV European Conference on Computer Vision, 1996, 2000.
- CAIP Int. Conference on Computer Analysis of Images and Patterns, 1997, 1999.
- RFIA Congrès Francophone de Rec. des Formes et Intelligence Artificielle, 2000.
- IROS IEEE/RSJ International Conference on Intelligent Robots and Systems, 2011.

PhD Committees

Reviewer of Habilitation Theses

- Alain Crouzil, Université de Toulouse, 2015.
- Xavier Savatier, Université de Rouen, 2014.
- Nicolas Hautière, Université Paris-Est, 2011.
- Fakhreddine Ababsa, Université d'Evry Val d'Essonne, 2010.
- David Fofi, Université de Bourgogne, 2008.
- Joaquim Salvi, Université de Picardie Jules Verne, 2008

Member of Habilitation Committees

- Christophe Cudel, Université de Haute-Alsace, Mulhouse, 2013.
- Sylvie Treuillet, Polytech Orléans, 2008.
- Vincent Charvillat, Institut National Polytechnique de Toulouse, 2008.

Reviewer of PhD Theses

- Dongming Chen, Ecole Centrale de Lyon, 2015.
- Sebastian Haner, Lund University, Sweden, 2015.
- Behrooz Nasihatkon, The Australian National University, 2014.
- Laurent Caraffa, Paris 6, 2013.
- Pedro Miraldo, Coimbra University, Portugal, 2013.
- Christian Unger, Technische Universität München, Germany, 2013.
- Peng Zhao, Hongkong University of Science and Technology, 2012.
- Jean-Pascal Burochin, Université Paris-Est, 2012.

- Elizabeth González García, Universidad de Castilla-La Mancha, Spain, 2012.
- Victor Castañeda, Technische Universität München, Germany, 2012.
- Viorica Pătrăucean, Université de Toulouse, 2012.
- Pierre Lebraly, Université d'Auvergne, 2012.
- Guillaume Batog, Université de Nancy 2, 2011.
- Benoit Ducarouge, Université de Toulouse, 2011.
- Dieu Sang Ly, Université de Picardie Jules Verne, 2011.
- Zhongwei Tang, ENS Cachan, 2011.
- Alexander Ladikos, Technische Universität München, Germany, 2011.
- Oussama Moslah, Université de Cergy-Pontoise, 2011.
- Adan Salazar-Garibay, École Nationale Supérieure des Mines de Paris, 2011.
- Pierre Lothe, Université Blaise Pascal, Clermont-Ferrand, 2010.
- Jean-Charles Bazin, KAIST (Korea Advanced Institute of Science and Technology), 2010.
- Juho Kannala, University of Oulu, Finland, 2010.
- Thibaud Debaecker, Université Pierre et Marie Curie (Paris 6), 2010.
- Rémi Boutteau, Université de Rouen, 2010.
- Ferran Espuny, University of Barcelona, Spain, 2009.
- Pascaline Parisot, Institut National Polytechnique de Toulouse, 2009.
- Lionel Pénard, Université Paris V, 2009.
- Jae-Hak Kim, The Australian National University, 2008.
- Jean-François Ménudet, Université Jean Monnet, Saint Etienne, 2008.
- Benoît Bocquillon, Université Paul Sabatier, Toulouse, 2008.
- Vincent Brandou, Université de Nice-Sophia Antipolis, 2008.
- Etienne Mouragnon, Université Blaise Pascal, Clermont-Ferrand, 2007.
- Christoph Strecha, Katholieke Universiteit Leuven, Belgium, 2007.
- Carles Matabosch Geronès, Universitat de Girona, Spain, 2007.
- Michela Farenzena, Università degli Studi di Verona, Italy, 2007.
- Bertrand Vandeportaele, Institut National Polytechnique de Toulouse, France, 2006.
- Benjamin Albouy, Université d'Orléans, France, 2006.
- Eric Royer, Université Blaise Pascal, Clermont-Ferrand, France, 2006.
- Rada Stegerean, Institut National Polytechnique de Grenoble, France, 2006.
- John Mallon, Dublin City University, Ireland, 2005.
- Diego Ortín Trasobares, University of Zaragoza, Spain, 2005.
- Branislav Mičušik, Czech Technical University, Prague, 2004.
- Sébastien Cornou, Université Blaise Pascal, Clermont-Ferrand, France, 2004.
- Carlos Hernández Esteban, Ecole Nationale Supérieure des Télécommunications, France, 2004.

President of PhD Committees

- Julian Quiroga, Grenoble University, 2014.
- Lilian Calvet, Université de Toulouse, 2014.

- Jordi Sanchez-Riera, Grenoble University, 2013.
- Marion Decrouez, Grenoble University, 2013.
- David Ok, École des Ponts ParisTech, 2013.
- Florian Bugarin, École des Mines d'Albi, 2012.
- John Ruiz-Hernandez, Grenoble University, 2011.
- Daniela Craciun, Télécom ParisTech, 2010.

Member of PhD Committees

- Sacha Bernet, Université de Haute-Alsace, Mulhouse, 2012.
- Jérôme Courchay, École des Ponts ParisTech, 2011.
- Carla Silva Rocha Aguiar, Université Montpellier II, 2009.
- Patrice Navy, Université des Antilles, Guadeloupe, 2008.
- Sio-Hoï Ieng, Université Pierre et Marie Curie (Paris 6), 2005.
- Srikumar Ramalingam, University of California, Santa Cruz, 2005 (qualifying exam).
- Neil Birkbeck, University of Alberta, Canada, 2005 (MSc examination).
- Omar Tahri, Université de Rennes 1, 2004.
- Jonathan Fabrizio, Université Pierre et Marie Curie (Paris 6), 2004.
- Vincent Frémont, Ecole Centrale de Nantes, 2003.
- Nathalie Pessel, Université Montpellier II, 2003.

Supervision of Students etc.

Postdocs and Engineers

- Fausto Lo Feudo (post-doc, graduated from Université Lille Nord de France), since 2015.
- Alejandro Deymonnaz (engineer), 2012.
- Simone Gasparini (postdoc, graduated from Politecnico Milano, Italy), 2007–11.
- Kuk-Jin Yoon (postdoc, graduated from KAIST, Daejeon, Korea), 2006–08.
- Dana Cobzaş (postdoc, graduated from University of Alberta, Canada), 2004–05.
- Matthieu Personnaz (engineer), 2000–03.

PhD Students

- Thomas Capelle, since 2013.
- Ashutosh Natraj, 2009–12.
- Visesh Chari, 2008–12.
- Mauricio Díaz, 2007-11.
- Régis Perrier, 2007–11.
- Jamil Draréni (co-supervision agreement with U Montréal, Canada), 2007–10.
- Amaël Delaunoy, 2007–11.
 - AFRIF PhD thesis award (French Association for Pattern Recognition and Interpretation).
- Srikumar Ramalingam (co-supervision agreement with U California), 2004–06.

- INPG PhD thesis award.
- Runner-up AFRIF PhD thesis award (French Association for Pattern Recognition and Interpretation).
- Finalist Cor Baayen PhD award, ERCIM (European Research Consortium for Informatics and Mathematics).
- Pau Gargallo, 2003–08.
- Aude Jacquot, 2003–06.
- Thomas Bonfort, 2002–06.
- Marta Wilczkowiak, 2000–04.
- Adrien Bartoli, 2000–03.
 - INPG PhD thesis award.

Master Students and Interns

- Solange Blundi (Universidad de Buenos Aires, Argentina), 2014.
- Patrizio Inzaghi (Universidad de Buenos Aires, Argentina), 2014.
- Luciano Gervasoni (Universidad Nacional del Centro de la Provincia de Buenos Aires, Argentina), 2014.
- Abdelrahman Mohamed Ahmed (Nile University, Cairo, Egypt), 2014.
- Thomas Capelle (Universidad de Chile, Santiago), 2013.
- Jakub Krzywda (Poznan University of Technology, Poland), 2013.
- Brindusa Smaranda (Data Mining Knowledge Management Erasmus Mundus programme), 2013.
- Prakhar Biyani (Indian Institute of Technology, Roorkee, India), 2009.
- Saurabh Sensharma (National Institute of Technology, Trichy, India), 2009.
- Varun Raj Kompella, Master student, 2008–09.
- José-Manuel Fernandez, Master student, 2007–08.
- Yoo-Jin Choi, Intern, 2006–07.
- Pau Gargallo, Master student, 2002–03.
- Salvatore Notarangelo, Bachelor student, 2002–03.
- Lucile Prin-Zanet (Ecole Sup. Procédés Electroniques et Optiques, Orléans), Final year project, 2002–03.
- Adrien Bartoli, Master student, 1999/2000.
- Marta Wilczkowiak, Master student, 1999/2000.
- Thomas Bonfort, Master student, 2001–02.
- Anthony Garcia, Bachelor student, 2001–02.
- Magdalena Urbanek, Master student 2000–01, Final year project 1999/2000.
- Laurent Verschueren (KU Leuven, Belgium), Final year project, 2000.
- Frank Althoff (University of Bielefeld, Germany), Bachelor project, 1996.

Visitors

• Juho Kannala, Post-doc at Oulu University and National Academy of Finland, 2011/12 (4 months).

- João Barreto, Associate Professor at University of Coimbra (Portugal), 2009 (1 week).
- Julian Quiroga, Assistant Lecturer at Universidad Javierana Bogota (Colombia), 2009 (3 months).
- Hiroshi Kawasaki, Associate Professor, Saitama University (Japan), 2009/10 (1 year sabbatical).
- Sacha Bernet, PhD student at Université de Haute-Alsace, Mulhouse (France), 2009 (1 week).
- Yalin Bastanlar, PhD student at Middle East Technical University, Ankara (Turkey), 2008 (6 months).
- Luis Puig, PhD student at Universidad de Zaragoza (Spain), 2008 (4 months).
- Josechu Guerrero Campo, Associate Professor, Universidad de Zaragoza (Spain), 2007 (3 weeks).
- Olivier Koch, PhD student at MIT (USA), 2007 (3 months).
- Carlos Torre Ferrero, PhD student at Universidad de Cantabria, Santander (Spain), 2007 (3 months).
- Dana Cobzaş, Postdoc at University of Alberta (Canada), 2007 (3 months).
- Martin Jägersand, Associate Professor, University Alberta (Canada), 2007 (3 months).
- Mauricio Díaz, Assistant Lecturer at Universidad Javierana Bogota (Colombia), 2007 (3 months).
- Jose Gaspar, Assistant Professor at Instituto Superior Técnico Lisbon (Portugal), 2006 (1 month).
- Kiyoung Kim, PhD student at Gwangju Institute of Science and Technology (South Korea), 2005/06 (6 months).
- Lazaros Grammatikopoulos, PhD student at National Technical University Athens (Greece), 2005 (10 days).
- Diego Aguilera, PhD student at Universidad de Salamanca (Spain), 2005 (3 months).
- Jean-Philippe Tardif, PhD student at Université de Montréal, 2005 (3 months) and 2006 (3 months).
- Srikumar Ramalingam, MSc student at University of California at Santa Cruz, 2003 (3 months) and 2004 (6 months).
- Tomislav Pribanić, PhD student at Zagreb University (Croatia), 2004 (3 months).
- Pär Hammarstedt, PhD student at Malmö University (Sweden), 2004 (2 months).
- Ferran Espuny, PhD student at UPC Barcelona, 2004 (2 months) and 2006 (1 month).
- Nadia Lasri, Master student at Toulouse, 2000 (3 months).
- Tomáš Svoboda, PhD student at Technical University of Prague, 1996 (6 months).

Visits

- TU Munich, Germany, 18 months sabbatical, 2009-11.
- University of Osaka, Japan, 10 days, 2006.
- University of Zaragoza, Spain, 1 week, 2005.
- National Technical University Athens, Greece, 1 week, 2005.
- Sogang University, Seoul, South Korea, 1 week, 2004.
- Malmö and Lund Universities, Sweden, 1 week, 2003.
- Hong Kong University of Science and Technology, 1 week, 2002.
- Xidian University, Xi'an, China, 1 week, 2002.
- Kingston University, UK, 1 week, 2002.
- Kingston University, UK, 10 days and 7 days, 2001.

- National Lab for Pattern Recognition, Beijing, China, 10 days, 2000.
- University of Zaragoza, Spain, 10 days, 1999.
- Xidian University, Xi'an, China, 2 months, 1997.

Invited Presentations and Tutorials

Keynote speeches at conferences or workshops

- P. Sturm. *A historical survey of geometric computer vision*. CAIP International Conference on Computer Analysis of Images and Patterns, Sevilla, Spain, 2011.
- P. Sturm. *A historical survey of geometric computer vision*. OMNIVIS Workshop on Omnidirectional Vision, Camera Networks and Non-Classical Cameras, Barcelona, Spain, 2011.
- P. Sturm. *3D and appearance modeling from images*. CIARP Iberoamerican Congress on Pattern Recognition, Guadalajara, Mexico, November 2009.
- P. Sturm. *Complete Photoconsistency Optimization in Multi-View Stereo*. SCIA Scandinavian Conference on Image Analysis, Oslo, Norway, June 2009.
- P. Sturm. *General Imaging Design, Modelling and Applications*. VISAPP International Conference on Computer Vision Theory and Applications, Funchal, Madeira, Portugal, January 2008.
- P. Sturm. *Progress in 3D vision in the last two decades*. General Assembly of GdR ISIS (French Research Network on Image and Signal Processing), Batz-sur-Mer, France, May 2009.

Other invited conference talks

- E. Arnaud and P. Sturm. *Modèles LUTI des modèles numériques*. 2me Journée d'études sur les modèles "Occupation du sol Transport", Centre d'Analyse Stratégique, Paris, 2012.
- P. Sturm. *Photoconsistency optimization in multi-view stereo*. Workshop on Fundamental and Applied 3D Computer Vision, Clermont-Ferrand, France, 2012.
- P. Sturm. *Research on multi-view reconstruction and other topics*. Computer Vision Colloquium (associated with ACCV'10 Area Chair meeting), Tokyo, Japan, September 2010.
- P. Sturm. *Calibrage de caméras à des fins métrologiques*. Journée Thématique Métrologie 3D par vision, Lyon, France, March 2008.
- P. Sturm. *Modélisation 3D et de l'apparence d'objets à partir d'images*. Journée d'étude "3D" du Club VISU, Montpellier, France, December 2007.
- P. Sturm. *Generic Models and Algorithms for Omnidirectional Vision*. Sanken International Symposium 2006 on Advanced Science and Technology for Materials, Biology, and Information, Osaka, Japan, February 2006.
- P. Sturm. *Structure-from-Motion with Generic Camera Models*. Computer Vision Colloquium (associated with ECCV'06 Area Chair meeting), Graz, Austria, January 2006.
- P. Sturm. A Generic Framework for Structure & Motion and Camera Calibration. 12th Seminar on Theoretical Foundations of Computer Vision Imaging Beyond the Pin-hole Camera, Schloß Dagstuhl, Germany, June 2004.
- P. Sturm. *Auto-calibrage en vision par ordinateur : de la théorie à la pratique*. Journées Jeunes Chercheurs ORASIS, Gérardmer, France, May 2003.

• P. Sturm. *Calibration and Orientation for Omnidirectional Vision*. Workshop on New Developments in Close Range Photogrammetry, Bonn, Germany, March 2003.

- P. Sturm. *Mixing Catadioptric and Perspective Cameras*. Pattern Recognition and Computer Vision Colloquium, Prague, Czech Republic, November 2002.
- P. Sturm. *Auto-calibrage de caméras et reconstruction 3-D à partir d'images*. Journées Nationales de la Recherche en Robotique, Hyères, France, October 2001.

Tutorials

- P. Sturm. *Tutorial on Computer Vision*. CIARP Iberoamerican Congress on Pattern Recognition, Guadalajara, Mexico, November 2009.
- P. Sturm, R. Swaminathan and S. Ramalingam. *General Imaging Design, Calibration and Applications*. ECCV European Conference on Computer Vision, Graz, Austria, May 2006.
- P. Sturm. *Modeling and Analysing Images of Generic Cameras*. Symposium of ISPRS Commission III, Bonn, Germany, September 2006.

Invited Seminars

- Lund University, Sweden, March 2015.
- Université de Haute Alsace, Mulhouse, France, March 2014.
- Université de Toulouse, France, January 2014.
- Coimbra University, Portugal, October 2013.
- ETH Zürich, Switzerland, November 2012.
- Qualcomm Austria and TU Vienna, October 2012.
- Institute of Mathematics, Romanian Academy, Bucharest, April 2012.
- European Patent Office, Munich, Germany, January 2010.
- TU Munich, Germany, November 2009.
- KAIST (Korea Advanced Institute of Science and Technology), Daejeon, South Korea, June 2009.
- Université de Montpellier, France, January 2009.
- Université de Bourgogne, France, November 2008.
- Università degli Studi di Verona, Italy, April 2007.
- Sanken, Osaka, Japan, February 2006.
- CREA Lab, Amiens, France, November 2005.
- National Lab for Pattern Recognition, Beijing, China, October 2005.
- National Technical University Athens, Greece, April 2005.
- Czech Technical University, Prague, Czech Republic, November 2004.
- KAIST (Korea Advanced Institute of Science and Technology), Daejeon, South Korea, Sept. 2004.
- GIST (Gwangju Inst. of Science and Technology), Gwangju, South Korea, Sept. 2004.
- Seoul National University, South Korea, September 2004.
- Sogang University, Dept. of Mathematics, Seoul, South Korea, August 2004.
- Sogang University, Dept. of Media Technology, Seoul, South Korea, August 2004.
- FGAN-FOM, Ettlingen, Germany, May 2003.
- Malmö Högskola, Sweden, April 2003.

- Xidian University, Xi'an, China, October 2002.
- Chinese University of Hong Kong, October 2002.
- Hong Kong University of Science and Technology, October 2002.
- ETH Zürich, Switzerland, April 2001.
- LASMEA, Clermont-Ferrand, France, March 2001.
- National Lab for Pattern Recognition, Beijing, China, May 2000.
- Kingston University, UK, June 1999.
- Siemens Corporate Research, Princeton, USA, May 1999.
- University of Zaragoza, Spain, September 1999.
- Xidian University, Xi'an, China, April 1997.

Skills and Competencies

- Projective and computational geometry
- Numerical optimization and matrix analysis
- Image formation and processing
- Statistics
- Experienced and efficient programmer (C, C++, Assembler, Pascal, Smalltalk)
- Mathematical software (Maple, Matlab)
- Other (Qt, VRML, OpenGL)

Other Activities

Languages: German (native speaker), English (fluent), French (fluent), Romanian (beginner).

Company founder: One-person company, development and distribution of software (1990–1997), over 60 clients in Germany, Austria and Switzerland.

Pedagogical Training: Courses and practical instruction, acquisition of a license for professional and industrial instruction, issued by the Chamber of Commerce and Industry of Karlsruhe, Germany.

Organization of high level sports events (Judo, Sumo)

- Coordinator of computer related tasks (draw, statistics, results) in the organization of three World Championships, two Continental Championships and over 50 national and international events.
- Organizer of the 1991 German National Students Championships in Judo.

College Sports: Technical and administrative responsable of the Judo section of the college sports at the University of Karlsruhe, 1988–93: planning of practice hours, treasurer, organization of competitions, grading examina, parties, trips, etc.

Sports (Judo):

- Competition in youth national team and senior national team league.
- Coaching licence.

Publications

Monographs:

1. P. Sturm, S. Ramalingam, J.-P. Tardif, S. Gasparini and J. Barreto. *Camera Models and Fundamental Concepts Used in Geometric Computer Vision*. In *Foundations and Trends in Computer Graphics and Vision*, 6(1–2):1–183, 2011.

Patents:

- 1. R. Perrier, M. Ortner, E. Arnaud, P. Sturm. *Method for estimating the movement of a traveling observation instrument flying over a celestial body*. International patent WO/2011/061123, 2011.
- 2. R. Perrier, M. Ortner, E. Arnaud, P. Sturm. *Procédé d'estimation du mouvement d'un instrument d'observation à défilement survolant un corps céleste*. French Patent FR2952744 A1, 2011.

Journals:

- 1. R. Perrier, E. Arnaud, P. Sturm and M. Ortner. *Estimation of an Observation Satellite's Attitude using Multimodal Pushbroom Cameras*. In *PAMI* IEEE *Transactions of Pattern Analysis and Machine Intelligence*, published online since 26 September 2014.
- 2. M. Díaz and P. Sturm. Estimating Photometric Properties from Image Collections. In Journal of Mathematical Imaging and Vision, 47(1-2):93–107, 2013.
- 3. L. Puig, P. Sturm and J. Guerrero. *Hybrid Homographies and Fundamental Matrices Mixing Uncalibrated Omnidirectional and Conventional Cameras*. In MVA Machine Vision and Applications, 24(4):721–738, 2013.
- 4. Y. Bastanlar, A. Temizel, Y. Yardimci and P. Sturm. *Multi-view Structure-from-Motion for Hybrid Camera Scenarios*. In *IVC Image and Vision Computing*, 30(8):557–572, 2012.
- 5. J. Courchay, A. Dalalyan, R. Keriven and P. Sturm. *On Camera Calibration with Linear Programming and Loop Constraint Linearization*. In *IJCV International Journal of Computer Vision*, 97(1):71–90, 2012.
- 6. S. Hinterstoisser, C. Cagniart, S. Ilic, P. Sturm, N. Navab, P. Fua and V. Lepetit. *Gradient Response Maps for Real-Time Detection of Texture-Less Objects*. In *PAMI* IEEE *Transactions of Pattern Analysis and Machine Intelligence*, 34(5):876–888, 2012.
- 7. V. Raj Kompella and P. Sturm. *Collective-Reward Based Approach for Detection of Semi-Transparent Objects in Single Images*. In *CVIU Computer Vision and Image Understanding*, 116(4):484–499, 2012.
- 8. L. Puig, J. Bermúdez, P. Sturm and J.J. Guerrero. *Calibration of omnidirectional cameras in practice: A comparison of methods*. In *CVIU Computer Vision and Image Understanding*, 116(1):120–137, 2012.
- 9. L. Puig, Y. Bastanlar, P. Sturm, J.J. Guerrero and J.P. Barreto. *Calibration of Central Catadioptric Cameras Using a DLT-Like Approach*. In *IJCV International Journal of Computer Vision*, 93(1):101–115, 2011.
- 10. J. Draréni, S. Roy and P. Sturm. *Plane-Based Calibration for Linear Cameras*. In *IJCV International Journal of Computer Vision*, 91(2):146–156, 2011.
- 11. S. Ramalingam, P. Sturm and S. Lodha. *Generic self-calibration of central cameras*. In *CVIU Computer Vision and Image Understanding*, 114(2):210–219, 2010.

12. K.-J. Yoon, E. Prados and P. Sturm. *Joint Estimation of Shape and Reflectance using Multiple Images with Known Illumination Conditions*. In *IJCV – International Journal of Computer Vision*, 86(2-3):192–210, 2010.

- 13. T. Pribanić, P. Sturm and S. Peharec. Wand Based Calibration of 3D Kinematic System. In IET Computer Vision, 3(3), 124-129, 2009.
- 14. D. Cobzaş, M. Jägersand and P. Sturm. 3D SSD tracking with estimated 3D planes. In IVC Image and Vision Computing, 27(1), 69-79, 2009.
- 15. J.-P. Tardif, P. Sturm, M. Trudeau and S. Roy. *Calibration of Cameras with Radially Symmetric Distortion*. In *PAMI* IEEE *Transactions of Pattern Analysis and Machine Intelligence*, 31(9), 1552–1566, 2009.
- 16. T. Pribanić, P. Sturm and M. Cifrek. *Calibration of 3D kinematic systems using orthogonality constraints*. In *MVA Machine Vision and Applications*, 18(6), 367-381, 2007.
- 17. S. Ramalingam, S. Lodha and P. Sturm. *A Generic Structure-from-Motion Framework*. In CVIU Computer Vision and Image Understanding, 103(3), 218-228, 2006.
- 18. A. Bartoli and P. Sturm. Structure From Motion Using Lines: Representation, Triangulation and Bundle Adjustment. In CVIU Computer Vision and Image Understanding, 100(3), 416-441, 2005.
- 19. P. Sturm, Z.L. Cheng, P.C.Y. Chen and A.N. Poo. Focal Length Calibration from Two Views: Method and Analysis of Singular Cases. In CVIU Computer Vision and Image Understanding, 99(1), 58-95, 2005.
- 20. M. Wilczkowiak, P. Sturm and E. Boyer. *Using Geometric Constraints Through Parallelepipeds for Calibration and 3D Modelling*. In *PAMI* IEEE *Transactions of Pattern Analysis and Machine Intelligence*, 27 (2), 194-207, 2005.
- 21. O. Chum, T. Pajdla and P. Sturm. *The Geometric Error for Homographies*. In *CVIU Computer Vision and Image Understanding*, 97(1), 86-102, 2005.
- 22. T. Rodriguez, P. Sturm, P. Gargallo, N. Guilbert, A. Heyden, J.M. Menendez and J.I. Ronda. *Photore-alistic 3D Reconstruction from Handheld Cameras*. In MVA Machine Vision and Applications, 16(4), 246-257, 2005.
- 23. P. Sturm and S. Ramalingam. Géométrie d'images multiples pour des modèles de caméra généraux. In *Traitement du Signal*, 22(5), 483-495, 2005.
- 24. A. Bartoli and P. Sturm. *Non-Linear Estimation of the Fundamental Matrix With Minimal Parameters*. In *PAMI* IEEE *Transactions of Pattern Analysis and Machine Intelligence*, 26 (4), 426-432, 2004.
- 25. A. Bartoli and P. Sturm. *The 3D Line Motion Matrix and Alignement of Line Reconstructions*. In *IJCV International Journal of Computer Vision*, 57 (3), 159-178, 2004.
- 26. A. Bartoli and P. Sturm. Constrained Structure and Motion From Multiple Uncalibrated Views of a Piecewise Planar Scene. In IJCV International Journal of Computer Vision, 52 (1), 45-64, 2003.
- 27. P. Sturm. Critical Motion Sequences for the Self-Calibration of Cameras and Stereo Systems with Variable Focal Length. In IVC Image and Vision Computing, 20 (5-6), 415-426, 2002.
- 28. P. Sturm. A Case against Kruppa's Equations for Camera Self-Calibration. In PAMI IEEE Transactions of Pattern Analysis and Machine Intelligence, 22 (10), 1199-1204, 2000.
- 29. O. Faugeras, L. Quan and P. Sturm. Self-calibration of 1D projective camera and its application to the self-calibration of a 2D projective camera. In PAMI IEEE Transactions of Pattern Analysis and Machine Intelligence, 22 (10), 1179-1185, 2000.
- 30. P. Sturm. Self-Calibration of a Moving Zoom-Lens Camera by Pre-Calibration. In IVC Image and Vision Computing, 15 (8), 583-589, 1997.

31. R.I. Hartley and P. Sturm. *Triangulation*. In *CVIU – Computer Vision and Image Understanding*, 68 (2), 146-157, 1997.

Journals without Peer-Reviewing:

1. R. Mohr, M. Douze and P. Sturm. Géométrie projective, analyse numérique et vision par ordinateur. In Bulletin de l'Union des Professeurs de Spéciales – Mathématiques et Sciences Physiques, 219, 12-30, 2007.

Book Chapters:

- 1. P.-Y. Longaretti, J. Alapetite, J.-Y. Courtonne, E. Arnaud, E. Prados, D. Dupré, A. Rolland, P. Sturm. *Durabilité et modélisation intégrée de la ville et de son territoire : quels outils pour quels objectifs ?* Rapport final du Programme Interdisciplinaire de Recherche Ville et Environnement (PIRVE), à paraître, 2014.
- 2. P. Sturm. *Omnidirectional vision*. In *Computer Vision: A Reference Guide*, K. Ikeuchi (ed.), Springer Verlag, 2014.
- 3. P. Sturm. *Pinhole camera model*. In *Computer Vision: A Reference Guide*, K. Ikeuchi (ed.), Springer Verlag, 2014.
- 4. P. Sturm. Optical axis. In Computer Vision: A Reference Guide, K. Ikeuchi (ed.), Springer Verlag, 2014.
- 5. P. Sturm. Focal length. In Computer Vision: A Reference Guide, K. Ikeuchi (ed.), Springer Verlag, 2014.
- 6. P. Sturm. Fisheye lens. In Computer Vision: A Reference Guide, K. Ikeuchi (ed.), Springer Verlag, 2014.
- 7. P. Sturm. *Calibration of a non-single viewpoint system*. In *Computer Vision: A Reference Guide*, K. Ikeuchi (ed.), Springer Verlag, 2014.
- 8. P. Sturm. Image plane. In Computer Vision: A Reference Guide, K. Ikeuchi (ed.), Springer Verlag, 2014.
- 9. S. Gasparini and P. Sturm. *Multi-View Matching Tensors from Lines for General Camera Models*. In *Tensors in Image Processing and Computer Vision*, S. Aja-Fernández, R. de Luis García, D. Tao and X. Li (eds.), Advances in Pattern Recognition Series, Springer Verlag, 2009.
- 10. P. Sturm, S. Ramalingam and S. Lodha. *On Calibration, Structure from Motion and Multi-View Geometry for Generic Camera Models*. In *Imaging Beyond the Pinhole Camera*, K. Daniilidis and R. Klette (eds.), Vol. 33, Computational Imaging and Vision Series, Springer Verlag, 2006.
- 11. E. Boyer and P. Sturm. *Modélisation à partir d'Images*. In *Synthèse d'Images Géographiques*, F. Sillion (ed.), Hermès Science Publications, 57-89, 2002.

Peer-Reviewed International Conferences:

- 1. T. Capelle, P. Sturm, A. Vidard, B. Morton. Formulating LUTI Calibration As an Optimisation Problem: Estimation of Tranus Shadow Price and Substitution Parameters. AAAI Workshop on Computational Sustainability, Austin, Texas, 2015.
- 2. T. Capelle, P. Sturm, A. Vidard. *Formulating LUTI calibration as an optimization problem: example of Tranus shadow-price estimation*. Symposium "Towards integrated modelling of urban systems", Lyon, France, 2014.

3. P. Bonnel, N. Coulombel, E. Prados, P. Sturm, E. Arnaud, C. Boittin, L. Bouzouina, J. Cabrera Delgado, T. Capelle, J. Delons, L. Gilquin, V. Hilaire, M. de Lapparent, D. Nguyen-Luong, J.-P. Nicolas, M. Saujot, A. Tschirhard and A. Vidard. *A survey on the calibration and validation of integrated land use and transportation models*. Symposium "Towards integrated modelling of urban systems", Lyon, France, 2014.

- 4. V. Chari and P. Sturm. *A Theory of Refractive Photo-Light-Path Triangulation*. CVPR IEEE Conference on Computer Vision and Pattern Recognition, Portland, Oregon, 2013.
- 5. D. Herrera Castro, J. Kannala, P. Sturm, J. Heikkilä. *A learned joint depth and intensity prior using Markov Random fields*. 3DV International Conference on 3D Vision, Seattle, 2013.
- 6. C. Unger, E. Wahl, P. Sturm, and S. Ilic. *Stereo Fusion from Multiple Viewpoints*. DAGM–OAGM Joint Pattern Recognition Symposium, Graz, Austria, 2012.
- 7. A. Natraj, P. Sturm, C. Demonceaux, and P. Vasseur. *A Geometrical Approach for Vision Based Attitude and Altitude Estimation for UAVs in Dark Environments*. IROS IEEE/RSJ International Conference on Intelligent Robots and Systems, Vilamoura, Portugal, 2012.
- 8. S. Ramalingam, S. Bouaziz, P. Sturm and P.H.S. Torr. *The Light-Path Less Traveled*. CVPR IEEE Conference on Computer Vision and Pattern Recognition, Colorado Springs, 3145-3152, 2011.
- 9. M. Díaz and P. Sturm. *Exploiting image collections for recovering photometric properties*. CAIP International Conference on Computer Analysis of Images and Patterns, Seville, Spain, 253-260, 2011.
- 10. M. Díaz and P. Sturm. *Radiometric Calibration using Photo Collections*. ICCP IEEE International Conference on Computational Photography, Pittsburgh, USA, 2011.
- 11. P. Sturm. *A historical survey of geometric computer vision*. CAIP International Conference on Computer Analysis of Images and Patterns, Seville, Spain, 1-8, 2011.
- 12. V. Raj Kompella and P. Sturm. *Detection and Avoidance of Semi-Transparent Obstacles using a Collective-Reward Based Approach*. ICRA IEEE International Conference on Robotics and Automation, Shanghai, China, 3469-3474, 2011.
- 13. S. Ramalingam, S. Bouaziz and P. Sturm. *Pose estimation using both Points and Lines for Geo-Localization*. ICRA IEEE International Conference on Robotics and Automation, Shanghai, China, 4716-4723, 2011.
- 14. A. Natraj, C. Demonceaux, P. Vasseur and P. Sturm. *Vision based attitude and altitude estimation for UAVs in dark environments*. IROS IEEE/RSJ International Conference on Intelligent Robots and Systems, San Francisco, USA, 4006-4011, 2011.
- 15. M. Díaz and P. Sturm. *Photometric Calibration using Multiples Images and a prior on Camera Response*. ICMV IEEE International Conference on Machine Vision, Hong Kong, 2010.
- 16. R. Perrier, E. Arnaud, P. Sturm and M. Ortner. *Sensor measurements and image registration fusion to retrieve variation of satellite attitude*. ACCV Asian Conference on Computer Vision, Queenstown, New Zealand, November 2010.
- 17. T. Yamaguchi, H. Fukuda, R. Furukawa, H. Kawasaki and P. Sturm. *Video deblurring and super-resolution technique for multiple moving objects*. ACCV Asian Conference on Computer Vision, Queenstown, New Zealand, November 2010.
- 18. J. Courchay, A. Dalalyan, R. Keriven and P. Sturm. *Exploiting loops in the graph of trifocal tensors for calibrating a network of cameras*. ECCV European Conference on Computer Vision, Heraklion, Greece, 2010.
- 19. S. Ramalingam, S. Bouaziz, P. Sturm and M. Brand. *SKYLINE2GPS: Localization in Urban Canyons using Omni-Skylines*. IROS IEEE/RSJ International Conference on Intelligent Robots and Systems, Taipei, Taiwan, 2010.

20. R. Perrier, E. Arnaud, P. Sturm and M. Ortner. *Estimating satellite attitude from pushbroom sensors*. CVPR – IEEE Conference on Computer Vision and Pattern Recognition, San Francisco, California, June 2010.

- 21. R. Perrier, E. Arnaud, P. Sturm and M. Ortner. *Image-Based Satellite Attitude Estimation*. IGARSS IEEE International Geoscience and Remote Sensing Symposium, Honolulu, Hawaii, 3394-3397, July 2010.
- 22. R. Perrier, E. Arnaud, P. Sturm and M. Ortner. *Satellite Image Registration for Attitude Estimation with a Constrained Polynomial Model*. ICIP IEEE International Conference on Image Processing, Hong Kong, 2010.
- 23. H. Kawasaki, R. Sagawa, Y. Yagi, R. Furukawa, N. Asada and P. Sturm. *One-shot scanning method using an uncalibrated projector and camera system*. PROCAMS IEEE International Workshop on Projector-Camera Systems, San Francisco, USA, 2010.
- 24. J. Courchay, A. Dalalyan, R. Keriven and P. Sturm. *A global camera network calibration method with Linear Programming*. 3DPVT International Symposium on 3D Data Processing, Visualization and Transmission, Paris, France, 2010.
- 25. J. Draréni, S. Roy and P. Sturm. *Bas-Relief Ambiguity Reduction in Shape from Shadowgrams*. 3DPVT International Symposium on 3D Data Processing, Visualization and Transmission, Paris, France, 2010.
- P. Sturm, A. Delaunoy, P. Gargallo, E. Prados and K.-J. Yoon. 3D and Appearance Modeling from Images. CIARP – 14th Iberoamerican Congress on Pattern Recognition, Guadalajara, Mexico, 694-704, November 2009.
- M. Díaz and P. Sturm. Finding Images with Similar Lighting Conditions in Large Photo Collections. CIARP – 14th Iberoamerican Congress on Pattern Recognition, Guadalajara, Mexico, 53-60, November 2009.
- 28. P. Gurdjos, A. Bartoli and P. Sturm. *Is Dual Linear Self-Calibration Artificially Ambiguous?* ICCV IEEE International Conference on Computer Vision, Kyoto, Japan, October 2009.
- 29. S. Gasparini, P. Sturm and J. Barreto. *Plane-Based Calibration of Central Catadioptric Cameras*. ICCV IEEE International Conference on Computer Vision, Kyoto, Japan, October 2009.
- 30. Y. Ding, J. Yu and P. Sturm. *Multiperspective Stereo Matching and Volumetric Reconstruction*. ICCV IEEE International Conference on Computer Vision, Kyoto, Japan, October 2009.
- 31. S. Ramalingam, S. Bouaziz, P. Sturm and M. Brand. *Geolocalization using Skylines from Omni-Images*. S3DV IEEE Workshop on Search in 3D and Video, Kyoto, Japan, October 2009.
- 32. V. Chari and P. Sturm. *Multi-View Geometry of the Refractive Plane*. BMVC British Machine Vision Conference, London, UK, September 2009.
- 33. J. Barreto, J. Roquette, P. Sturm and F. Fonseca. *Automatic Calibration of Medical Endoscopes using a Single Image of a Planar Grid*. BMVC British Machine Vision Conference, London, UK, September 2009.
- 34. Y. Ding, J. Yu and P. Sturm. *Recovering Specular Surfaces Using Curved Line Images*. CVPR IEEE Conference on Computer Vision and Pattern Recognition, Miami, Florida, June 2009.
- 35. J. Draréni, S. Roy and P. Sturm. *Geometric Video Projector Auto-Calibration*. PROCAMS IEEE International Workshop on Projector-Camera Systems, Miami, Florida, June 2009.
- 36. K.-J. Yoon, E. Prados and P. Sturm. *Generic Scene Recovery using Multiple Images*. SSVM International Conference on Scale Space and Variational Methods in Computer Vision, Voss, Norway, June 2009.

37. J. Draréni, P. Sturm and S. Roy. *Projector Calibration Using a Markerless Plane*. VISAPP – International Conference on Computer Vision Theory and Applications, Lisbon, Portugal, Vol. 2, 377-382, February 2009.

- 38. P. Sturm and J. Barreto. *General Imaging Geometry for Central Catadioptric Cameras*. ECCV European Conference on Computer Vision, Marseille, France, Vol. 4, 609-622, October 2008.
- 39. Y. Bastanlar, L. Puig, P. Sturm, J.J. Guerrero and J.P. Barreto. *DLT-Like Calibration of Central Catadioptric Cameras*. OMNIVIS Workshop on Omnidirectional Vision, Camera Networks and Non-Classical Cameras, Marseille, France, October 2008.
- J. Draréni, P. Sturm and S. Roy. *Plane-Based Calibration for Linear Cameras*. OMNIVIS Workshop on Omnidirectional Vision, Camera Networks and Non-Classical Cameras, Marseille, France, October 2008.
- 41. L. Puig, J.J. Guerrero and P. Sturm. *Matching of Omindirectional and Perspective Images using the Hybrid Fundamental Matrix*. OMNIVIS Workshop on Omnidirectional Vision, Camera Networks and Non-Classical Cameras, Marseille, France, October 2008.
- 42. A. Delaunoy, E. Prados, P. Gargallo, J.-P. Pons and P. Sturm. *Minimizing the Multi-view Stereo Reprojection Error for Triangular Surface Meshes*. BMVC British Machine Vision Conference, Leeds, UK, September 2008.
- 43. J. Yu, L. McMillan and P. Sturm. *Multiperspective Modeling, Rendering, and Imaging*. STAR (State of the Art Report), EG Eurographics, Crete, Greece, April 2008.
- 44. S. Ramalingam and P. Sturm. *Minimal Solutions for Generic Imaging Models*. CVPR IEEE Conference on Computer Vision and Pattern Recognition, Anchorage, Alaska, June 2008.
- 45. S. Gasparini and P. Sturm. *Multi-View Matching Tensors from Lines for General Camera Models*. Workshop on Tensors in Image Processing and Computer Vision, Anchorage, Alaska, June 2008.
- 46. P. Gargallo, E. Prados and P. Sturm. *Minimiser l'erreur de reprojection en reconstruction de surfaces basée images*. RFIA Congrès Francophone de Reconnaissance des Formes et Intelligence Artificielle, Amiens, France, January 2008.
- 47. J.-P. Tardif, P. Sturm and S. Roy. *Plane-based self-calibration of radial distortion*. ICCV IEEE International Conference on Computer Vision, Rio de Janeiro, Brazil, October 2007.
- 48. P. Gargallo, E. Prados and P. Sturm. *Minimizing the Reprojection Error in Surface Reconstruction from Images*. ICCV IEEE International Conference on Computer Vision, Rio de Janeiro, Brazil, October 2007.
- 49. K.-J. Yoon, A. Delaunoy, P. Gargallo and P. Sturm. *Toward Global and Model based Multiview Stereo Methods for Shape and Reflectance Estimation*. PACV First International Workshop on Photometric Analysis For Computer Vision, Rio de Janeiro, Brazil, October 2007.
- 50. P. Sturm and P. Gargallo. *Conic Fitting Using the Geometric Distance*. ACCV Asian Conference on Computer Vision, Tokyo, Japan, Vol. 2, 784-794, November 2007.
- 51. P. Gargallo, P. Sturm and S. Pujades. *An Occupancy–Depth Generative Model of Multi-View Images*. ACCV Asian Conference on Computer Vision, Tokyo, Japan, Vol. 2, 373-383, November 2007.
- 52. J.-P. Tardif, P. Sturm and S. Roy. *Self-Calibration of a General Radially Symmetric Distortion Model*. ECCV European Conference on Computer Vision, Graz, Austria, Vol. 4, 186-199, May 2006.
- 53. N. Birkbeck, D. Cobzaş, P. Sturm and M. Jägersand. *Variational Shape and Reflectance Estimation under Changing Light and Viewpoints*. ECCV European Conference on Computer Vision, Graz, Austria, Vol. 1, 536-549, May 2006.

54. P. Gurdjos, P. Sturm and Y. Wu. *Euclidean Structure from N>=2 Parallel Circles: Theory and Algorithms.* ECCV – European Conference on Computer Vision, Graz, Austria, Vol. 1, 238-252, May 2006.

- 55. T. Bonfort, P. Sturm and P. Gargallo. *General Specular Surface Triangulation*. ACCV Asian Conference on Computer Vision, Hyderabad, India, Vol. II, 872-881, January 2006.
- 56. S. Ramalingam, P. Sturm and S. Lodha. *Theory and Calibration Algorithms for Axial Cameras*. ACCV Asian Conference on Computer Vision, Hyderabad, India, Vol. I, 704-713, January 2006.
- 57. P. Sturm and T. Bonfort. *How to Compute the Pose of an Object without a Direct View?* ACCV Asian Conference on Computer Vision, Hyderabad, India, Vol. II, 21-31, January 2006.
- 58. S. Ramalingam, P. Sturm and E. Boyer. *A Factorization Based Self-Calibration for Radially Symmetric Cameras*. 3DPVT International Symposium on 3D Data Processing, Visualization and Transmission, Chapel Hill, USA, 2006.
- 59. A. Jacquot, P. Sturm and O. Ruch. *3D Object Tracking Based on Multi-Model Particle Filtering*. 6th IEEE International Workshop on Visual Surveillance, Graz, Austria, May 2006.
- 60. T. Pribanić, P. Sturm and I. Brigić. Body segments angle computation from single view. 9th International Symposium on the 3-D Analysis of Human Movement, Valenciennes, France, June 2006.
- 61. T. Pribanić, P. Sturm and P. Bačić. A Human Body Model for Movement Analysis Using Optoelectronic System. 5th World Congress of Biomechanics, Munich, Germany, July/August 2006.
- 62. P. Hammarstedt, P. Sturm and A. Heyden. *Closed-form Solutions and Degenerate Cases for Camera Calibration with One-Dimensional Objects*. ICCV IEEE International Conference on Computer Vision, Beijing, China, 317-324, October 2005.
- 63. P. Gargallo and P. Sturm. *Bayesian 3D Modeling from Images using Multiple Depth Maps*. CVPR IEEE Conference on Computer Vision and Pattern Recognition, San Diego, California, 885-891, June 2005.
- 64. P. Sturm. *Multi-View Geometry for General Camera Models*. CVPR IEEE Conference on Computer Vision and Pattern Recognition, San Diego, California, 206-212, June 2005.
- 65. S. Ramalingam, P. Sturm and S.K. Lodha. *Towards Complete Generic Camera Calibration*. CVPR IEEE Conference on Computer Vision and Pattern Recognition, San Diego, California, 1093-1098, June 2005.
- S. Ramalingam, P. Sturm and S.K. Lodha. *Towards Generic Self-Calibration of Central Cameras*. OM-NIVIS – Workshop on Omnidirectional Vision, Camera Networks and Non-Classical Cameras, Beijing, China, 20-27, October 2005.
- 67. J.-P. Tardif and P. Sturm. *Calibration of Cameras with Radially Symmetric Distortion*. OMNIVIS Workshop on Omnidirectional Vision, Camera Networks and Non-Classical Cameras, Beijing, China, 44-51, October 2005.
- 68. T. Pribanić, P. Sturm and M. Cifrek. *On the Applicability of Several Methods for Camera Calibration*. EMBEC 3rd European Medical and Biological Engineering Conference and IFMBE European Conference on Biomedical Engineering, Prague, Czech Republic, 1-6, November 2005.
- 69. T. Pribanić, P. Sturm and M. Cifrek. *Camera Parameter Initialization for 3D Kinematic Systems*. ISPA International Symposium on Image and Signal Processing and Analysis, Zagreb, Croatia, 494-499, September 2005.
- 70. T. Pribanić, P. Sturm and M. Cifrek. *Practical Way to Initialize Camera Parameters using Absolute Conic*. VIIP Fifth IASTED International Conference on Visualization, Imaging, and Image Processing, Benidorm, Spain, 144-149, September 2005.
- 71. D. Cobzaş and P. Sturm. *3D SSD tracking with estimated 3D planes*. 2nd Canadian Conference on Computer and Robot Vision, Victoria, Canada, May 2005.

72. P. Sturm, S. Ramalingam and S.K. Lodha. *On Calibration, Structure-From-Motion and Multi-View Geometry for General Camera Models*. 2nd ISPRS Panoramic Photogrammetry Workshop, Berlin, Germany, February 2005. Published in the Int. Archives of Photogrammetry, Remote Sensing and Spatial Information Sciences, Vol. XXXVI-5/W8, R. Reulke and U. Knauer (eds.).

- 73. A. Jacquot, P. Sturm and O. Ruch. *Adaptive Tracking of Non-Rigid Objects Based on Color Histograms and Automatic Parameter Selection*. MOTION IEEE Workshop on Motion and Video Computing, Breckenridge, Colorado, USA, 103-109, January 2005.
- 74. P. Sturm and S. Ramalingam. *A Generic Concept for Camera Calibration*. ECCV European Conference on Computer Vision, Prague, Czech Republic, 1-13, Vol. 2, May 2004.
- 75. S. Ramalingam, S. Lodha and P. Sturm. *A Generic Structure-from-Motion Algorithm for Cross-Camera Scenarios*. OmniVis Workshop on Omnidirectional Vision, Camera Networks and Non-Classical Cameras, Prague, Czech Republic, 175-186, May 2004.
- 76. P. Sturm and P. Gurdjos. Méthodes et fondements géométriques pour l'autocalibrage plan. RFIA Congrès Francophone de Reconnaissance des Formes et Intelligence Artificielle, Toulouse, France, 351-360, Vol. 1, January 2004.
- 77. F. Jurie, E. Noirfalise and P. Sturm. *Calibrage itératif de caméras à partir de scènes planes*. RFIA Congrès Francophone de Reconnaissance des Formes et Intelligence Artificielle, Toulouse, France, 261-269, Vol. 1, January 2004.
- 78. A. Bartoli, M. Coquerelle and P. Sturm. *A Framework For Pencil-of-Points Structure-From-Motion*. ECCV European Conference on Computer Vision, Prague, Czech Republic, 28-40, Vol. 2, May 2004.
- 79. M. Wilczkowiak, P. Sturm and E. Boyer. *Using Geometric Constraints for Camera Calibration and Positioning and 3D Scene Modelling*. International Workshop on Vision Techniques Applied to the Rehabilitation of City Centres, Lisbon, Portugal, October 2004.
- 80. T. Bonfort and P. Sturm. *Voxel Carving for Specular Surfaces*. ICCV IEEE International Conference on Computer Vision, Nice, France, 591-596, Vol. I, October 2003.
- 81. M. Wilczkowiak, G. Trombettoni, C. Jermann, P. Sturm and E. Boyer. *Scene Modeling Based on Constraint System Decomposition Techniques*. ICCV IEEE International Conference on Computer Vision, Nice, France, 1004-1010, Vol. II, October 2003.
- 82. M. Wilczkowiak, P. Sturm and E. Boyer. *The Analysis of Ambiguous Solutions in Linear Systems and its Application to Computer Vision*. BMVC British Machine Vision Conference, Norwich, UK, 53-62, Vol. II, September 2003.
- 83. A. Bartoli and P. Sturm. *Multiple-View Structure and Motion From Line Correspondences*. ICCV IEEE International Conference on Computer Vision, Nice, France, 207-212, Vol. I, October 2003.
- 84. T. Rodriguez, P. Sturm, M. Wilczkowiak, A. Bartoli, M. Personnaz, N. Guilbert, F. Kahl, M. Johansson, A. Heyden, J.M. Menendez, J.I. Ronda and F. Jaureguizar. *VISIRE Photorealistic 3D Reconstruction from Video Sequences*. ICIP IEEE International Conference on Image Processing, Barcelona, Spain, 705-708, Vol. III, September 2003.
- 85. P. Gurdjos and P. Sturm. *Methods and Geometry for Plane-Based Self-Calibration*. CVPR IEEE Conference on Computer Vision and Pattern Recognition, Madison, Wisconsin, 491-496, Vol. 1, June 2003.
- 86. P. Sturm. *Mixing Catadioptric and Perspective Cameras*. OmniVis Workshop on Omnidirectional Vision, Copenhagen, Denmark, 37-44, June 2002.
- 87. P. Sturm. *Structure and Motion for Dynamic Scenes The Case of Points Moving in Planes*. ECCV European Conference on Computer Vision, Copenhagen, Denmark, 867-882, Vol. 2, May 2002.

88. M. Wilczkowiak, E. Boyer and P. Sturm. *3D Modelling Using Geometric Constraints: A Parallelepiped Based Approach*. ECCV – European Conference on Computer Vision, Copenhagen, Denmark, 221-236, Vol. 4, May 2002.

- 89. M. Wilczkowiak, P. Sturm and E. Boyer. *Calibrage et Reconstruction à l'aide de Parallélépipèdes et de Parallélogrammes*. RFIA Congrès Francophone de Reconnaissance des Formes et Intelligence Artificielle, Angers, France, 849-857, January 2002.
- 90. A. Bartoli and P. Sturm. *La matrice de mouvement pour droites 3D, application à l'alignement de reconstructions de droites*. RFIA Congrès Francophone de Reconnaissance des Formes et Intelligence Artificielle, Angers, France, 29-37, January 2002.
- 91. P. Sturm. *On Focal Length Calibration from Two Views*. CVPR IEEE Conference on Computer Vision and Pattern Recognition, Kauai, Hawaii, 145-150, Vol. II, December 2001.
- 92. A. Bartoli and P. Sturm. *The 3D Line Motion Matrix and the Alignment of Line Reconstructions*. CVPR IEEE Conference on Computer Vision and Pattern Recognition, Kauai, Hawaii, 287-292, Vol. I, December 2001.
- 93. A. Bartoli, P. Sturm and R. Horaud. *Projective Structure and Motion from Two Views of a Piecewise Planar Scene*. ICCV IEEE International Conference on Computer Vision, Vancouver, Canada, 593-598, Vol. I, July 2001.
- 94. A. Bartoli and P. Sturm. *Constrained Structure and Motion from N Views of a Piecewise Planar Scene*. VAA International Symposium on Virtual and Augmented Architecture, Dublin, Ireland, 195-206, June 2001.
- 95. A. Bartoli, P. Sturm and R. Horaud. *Structure and Motion from Two Uncalibrated Views Using Points on Planes*. 3DIM International Conference on 3D Digital Imaging and Modeling, Québec City, Canada, 83-90, May 2001.
- M. Urbanek, R. Horaud and P. Sturm. Combining Off- and On-line Calibration of a Digital Camera.
 3DIM International Conference on 3D Digital Imaging and Modeling, Québec City, Canada, 99-106, May 2001.
- 97. M. Wilczkowiak, E. Boyer and P. Sturm. *Camera Calibration and 3D Reconstruction from Single Images Using Parallelepipeds*. ICCV IEEE International Conference on Computer Vision, Vancouver, Canada, 142-148, Vol. I, July 2001.
- 98. P. Sturm. *Algorithms for Plane-Based Pose Estimation*. CVPR IEEE Conference on Computer Vision and Pattern Recognition, Hilton Head, USA, 1010-1017, June 2000.
- 99. P. Sturm. *A Method for 3D Reconstruction of Piecewise Planar Objects from Single Panoramic Images*. IEEE Workshop on Omnidirectional Vision, Hilton Head, USA, 119-126, June 2000.
- 100. P. Sturm and L. Quan. *Camera Calibration and Relative Pose Estimation from Gravity*. ICPR International Conference on Pattern Recognition, Barcelona, Spain, 72-75, Vol. 1, September 2000.
- 101. P. Sturm and S.J. Maybank. *On Plane-Based Calibration: A General Algorithm, Singularities, Applications*. CVPR IEEE Conference on Computer Vision and Pattern Recognition, Fort Collins, USA, 432-437, June 1999.
- 102. P. Sturm and S.J. Maybank. A Method for Interactive 3D Reconstruction of Piecewise Planar Objects from Single Images. BMVC British Machine Vision Conference, Nottingham, UK, 265-274, September 1999.
- P. Sturm. Critical Motion Sequences for the Self-Calibration of Cameras and Stereo Systems with Variable Focal Length. BMVC British Machine Vision Conference, Nottingham, UK, 63-72, September 1999.

104. S.J. Maybank and P. Sturm. *MDL*, *Collineations and the Fundamental Matrix*. BMVC – British Machine Vision Conference, Nottingham, UK, 53-62, September 1999.

- 105. P. Sturm. *Camera Self-Calibration: A Case against Kruppa's Equations*. ICIP IEEE International Conference on Image Processing, Chicago, USA, 172-175, 1998.
- 106. O. Faugeras, L. Quan and P. Sturm. *Self-calibration of 1D projective camera and its application to the self-calibration of a 2D projective camera*. ECCV European Conference on Computer Vision, Freiburg, Germany, 36-52, 1998.
- P. Sturm. Critical Motion Sequences for Monocular Self-Calibration and Uncalibrated Euclidean Reconstruction. CVPR – IEEE Conference on Computer Vision and Pattern Recognition, Puerto Rico, 1100-1105, 1997.
- 108. P. Sturm. *Critical Motion Sequences and Conjugacy of Ambiguous Euclidean Reconstructions*. SCIA Scandinavian Conference on Image Analysis, Laappeenranta, Finland, 439-446, 1997.
- T. Svoboda and P. Sturm. A Badly Calibrated Camera in Ego-Motion Estimation, Propagation of Uncertainty. CAIP International Conference on Computer Analysis of Images and Patterns, Kiel, Germany, 183-190, 1997.
- 110. P. Sturm. *Self-Calibration of a Moving Camera by Pre-Calibration*. BMVC British Machine Vision Conference, Edinburgh, UK, 675-684, 1996.
- 111. P. Sturm and B. Triggs. *A Factorization Based Method for Multi-Image Projective Structure and Motion*. ECCV European Conference on Computer Vision, Cambridge, UK, 709-720, 1996.
- 112. P. Sturm and L. Quan. *Affine Stereo Calibration*. CAIP International Conference on Computer Analysis of Images and Patterns, Prague, Czech Republic, 838-843, 1995.
- 113. R.I. Hartley and P. Sturm. *Triangulation*. CAIP International Conference on Computer Analysis of Images and Patterns, Prague, Czech Republic, 190-197, 1995.
- 114. F. Veillon, L. Quan and P. Sturm. *Joint Invariants of a Triplet of Coplanar Conics: Stability and Discriminating Power for Object Recognition*. CAIP International Conference on Computer Analysis of Images and Patterns, Prague, Czech Republic, 705-710, 1995.
- 115. R.I. Hartley and P. Sturm. *Triangulation*. ARPA Image Understanding Workshop, Monterey, USA, 957-966, 1994.

Peer-Reviewed National Conferences:

- 1. E. Arnaud, P.-Y. Longaretti, E. Prados, P. Sturm. *Modelling for local scale sustainability and decision-making support: reflections and difficulties.* Conference on Flow modeling for urban planning, Lille, France, 2012.
- 2. L. Calvet, P. Gurdjos, V. Charvillat, S. Gasparini, P. Sturm. Suivi de caméra à partir de marqueurs plans composés de cercles concentriques : paradigme et algorithmes. ORASIS, Praz-sur-Arly, France, 2011.
- 3. M. Díaz, P. Sturm. *Calibrage Radiométrique en Utilisant des Collections de Photos*. ORASIS, Praz-sur-Arly, France, 2011.
- 4. R. Perrier, E. Arnaud, P. Sturm, M. Ortner. *Estimation de l'attitude d'un satellite par recalage d'images*. CORESA COmpression et REprésentation des Signaux Audiovisuels, Lyon, France, October 2010.
- 5. M. Díaz, P. Sturm. *Recherche d'images avec des conditions d'illumination similaires dans une collection d'images*. ORASIS, Trégastel, France, 2009.
- 6. J. Draréni, S. Roy and P. Sturm. *Calibration de projecteur par plan non-marqué*. ORASIS, Trégastel, France, 2009.

7. A. Delaunoy, E. Prados, P. Gargallo, J.-P. Pons and P. Sturm. *Stéréo multi-vues : erreur de reprojection et maillages triangulaires*. ORASIS, Trégastel, France, 2009.

- 8. P. Gargallo and P. Sturm. *Modélisation 3D à partir d'images en utilisant plusieurs cartes de profondeur.* ORASIS, Fournol, France, 2005.
- 9. A. Jacquot, P. Sturm and O. Ruch. Suivi adaptatif d'objets non rigides basé sur des histogrammes de couleurs et une sélection automatique de paramètres. ORASIS, Fournol, France, 2005.
- 10. T. Bonfort and P. Sturm. *Reconstruction de surfaces réflechissantes à partir d'images*. ORASIS, Gérardmer, France, 59-65, 2003.
- 11. M. Wilczkowiak, P. Sturm and E. Boyer. *Une approche pour l'analyse et exploitation des contraintes géométriques en modélisation 3D*. ORASIS, Gérardmer, France, 41-50, 2003.
- 12. E. Noirfalise, F. Jurie and P. Sturm. *Autocalibration itérative de caméras à partir de structures planes*. ORASIS, Gérardmer, France, 157-164, 2003.
- 13. A. Bartoli and P. Sturm. *Triangulation projective contrainte par multi-coplanarité*. ORASIS, Cahors, France, 2001.
- 14. M. Wilczkowiak, E. Boyer and P. Sturm. *Calibrage de caméra et reconstruction à l'aide de paral-lélépipèdes*. ORASIS, Cahors, France, 2001.
- 15. S.J. Maybank and P. Sturm. *Minimum Description Length and the Inference of Scene Structure from Images*. IEE Colloquium on Applications of Statistics to Pattern Recognition, Birmingham, UK, April 1999.
- 16. P. Sturm and B. Triggs. *Structure et mouvement projectifs à partir d'images multiples par factorisation*. ORASIS, Clermont-Ferrand, France, 175-180, 1996.
- 17. P. Sturm. Calibrage dynamique d'une caméra en mouvement par pré-calibrage. ORASIS, Clermont-Ferrand, France, 61-66, 1996.

Other Conferences or Workshops:

- A. Delaunoy, K. Kanani, P. Sturm and O. Dubois-Matra. Multi-View 3D Reconstruction of Asteroids. ICATT – International Conference on Astrodynamics Tools and Techniques, Noordwijk, Netherlands, 2012.
- 2. P. Sturm. *Calibrage non paramétrique de caméras omnidirectionnelles et autres*. Journée thématique "Vision omnidirectionnelle", GdR ISIS, Amiens, 2007.
- 3. C. Wu, Z. Chen and P. Sturm. *3D Reconstruction and Metrology from Uncalibrated Image Sequences*. PRA Workshop on Information Science and Technology, Beijing, 2002.
- 4. P. Sturm. *Une méthode pour la reconstruction 3D d'objets plans par morceaux à partir d'une image panoramique*. Journées de travail "Vision omnidirectionnelle", GT5 (Vision) du GdR ISIS, Amiens, 2000.
- 5. P. Sturm. *Calibration par des plans*. Journées de travail "Géométrie et détection et suivi dans les séquences", GT5 (Vision) du GdR ISIS, Montbonnot, 2000.
- 6. C. Zeller, P. Sturm, L. Quan and O. Faugeras. *Perception-action en calibration affine et projective*. ORASIS, Sophia-Antipolis, 1995.

Technical Reports and Theses:

1. J. Krzywda, P. Sturm. *Calculating indices for urban sprawl*. Rapport de Recherche, INRIA, France, to appear, November 2013.

- 2. K.-J. Yoon, E. Prados, P. Sturm, A. Delaunoy, P. Gargallo. *Shape and Reflectance Recovery using Multiple Images with Known Illumination Conditions*. Rapport de Recherche 6309, INRIA, France, 2007.
- 3. P. Sturm. Recherches en vision par ordinateur. Habilitation thesis, INPG, Grenoble, France, 2006.
- 4. S. Ramalingam, P. Sturm and S.K. Lodha. *Generic Calibration of Axial Cameras*. Rapport de Recherche 5827, INRIA, France, 2005.
- 5. S. Ramalingam, P. Sturm and S.K. Lodha. *Theory and Experiments towards Complete Generic Calibration*. Rapport de Recherche 5562, INRIA, France, 2005.
- 6. P. Sturm and S. Ramalingam. *A Generic Calibration Concept: Theory and Algorithms*. Rapport de Recherche 5058, INRIA, France, 2003.
- 7. M. Wilczkowiak, P. Sturm and E. Boyer. *Using Geometric Constraints Through Parallelepipeds for Calibration and 3D Modelling*. Rapport de Recherche 5055, INRIA, France, 2003.
- 8. O. Chum, T. Pajdla and P. Sturm. *On Geometric Error for Homographies*. CTU-CMP-2003-13, Czech Technical University, Prague, 2003.
- 9. M. Personnaz, P. Sturm and F. Devernay. *Design of a Library for Dense Matching*. Rapport Technique 0278, INRIA, France, 2003.
- 10. M. Personnaz and P. Sturm. *Calibration of a stereo-vision system by the non-linear optimization of the motion of a calibration object*. Rapport Technique 0269, INRIA, France, 2002.
- 11. M. Personnaz and P. Sturm. *Specifications of the software videomatch 1.1*. Rapport Technique 0260, INRIA, France, 2002.
- 12. A. Bartoli and P. Sturm. *Three New Algorithms for Projective Bundle Adjustment with Minimum Parameters*. Rapport de Recherche 4236, INRIA, France, 2001.
- 13. M. Urbanek, R. Horaud and P. Sturm. *Calibration of Digital Amateur Cameras*. Rapport de Recherche 4214, INRIA, France, 2001.
- 14. A. Bartoli, P. Sturm and R. Horaud. A Projective Framework for Structure and Motion Recovery from Two Views of a Piecewise Planar Scene. Rapport de Recherche 4070, INRIA, France, 2000.
- 15. P. Sturm. *Vision 3D non calibrée : contributions à la reconstruction projective et étude des mouvements critiques pour l'auto-calibrage*. PhD thesis, INPG, Grenoble, France, 1997.
- 16. J. Blanc, P. Sturm, G. Giraudon and R. Mohr. Étude bibliographique sur les systèmes de modélisation de bâtiments à partir d'images aériennes ou satellitaires. Internal INRIA report, 1997.
- 17. T. Svoboda and P. Sturm. What can be done with a Badly Calibrated Camera in Ego-Motion Estimation? CTU-CMP-1996-01, Czech Technical University, Prague, 1996.
- 18. P. Sturm and L. Quan. Affine Stereo Calibration. TR LIFIA-29, Grenoble, France, 1995.
- 19. P. Sturm. *Exploitation de la capacité d'un système stéréo partiellement calibré*. Master's Thesis, INPG, Grenoble, France, 1994.
- 20. P. Sturm. Partiell kalibrierte Stereosysteme. Diplomarbeit, TU Karlsruhe, Germany, 1994.
- 21. P. Sturm. Konzeption und Realisierung von Komponenten zur Anbindung von multimedialen Anwendungen an eine Unterstützungsschicht. Studienarbeit, TU Karlsruhe, Germany, 1991.