

# Peter Sturm

# Curriculum Vitæ

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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 (~ Professor), INRIA, France.
2015–2020	Deputy Scientific Director, 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 on Environmental Challenges, ENSE3 Engineering School, Grenoble, 2022–23.
- Master course on Environmental Challenges, Ecole Centrale Marseille, 2021–24.
- Bachelor course on Environmental Challenges, University Grenoble Alpes, 2020–23.
- Doctoral course on Environmental Challenges, University Grenoble Alpes, 2019, 2021–23.
- Master course (with practicals) on Visual Computing, University of Grenoble, 2011–14.
- Master course (with practicals) on Computer Vision, University of Grenoble, 2011–12.
- 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), 2000–15.
- 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 Responsibilities

- Member of the CLHSCT of INRIA Grenoble (Local Committee for Hygiene, Security and Working Conditions), 2000–09 and 2019–22.
- Elected substitute member of the CTI (Comité Technique Inria – Inria Technical Committee), 2015–19.
- “Référént Chercheurs” (person of trust for colleagues experiencing problems in their work life), INRIA Grenoble, 2012–15.
- Member of the Scientific Committee of INRIA Grenoble, 2011–15.
- 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 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

- LINDDA (PEPR programme, 2023–28), Co-PI.  
Partners: Learning Planet Institute, CY School of Design, Conservatoire National des Arts et Métiers, ITAP/Inrae, G-EAU/Inrae.  
This is a flagship project of the national PEPR programme on Agroecology and Digital.
- QAMECS / MOBIL' AIR (Ademe, Grenoble Metropolitan Area, IDEX University Grenoble Alpes, 2016–22), Collaborator.  
Partners: INSERM, Gael Lab, Air Rhône-Alpes, Sciences Po Grenoble, IAB.  
Our goal: model and simulate zoning areas of restricted traffic in cities (restriction to less-polluting vehicles). This contributes to the general objective of the project on considering atmospheric pollution: characterization of novel exposure markers, of biological, health, economic and societal impacts and evaluation of public policies.
- CITiES (ANR programme, 2013–16), Collaborator.  
Partners: MOISE (INRIA Grenoble), IRTES-SeT (Univ. 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 manoeuvring 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.
- Agoranov (Tech incubator), Paris, France.
- PRES Paris Sud, France.
- Comue Université Paris-Est, France.
- Burgundy Region, France.
- Lorraine Region, France.
- Nouvelle-Aquitaine Region, France.
- Ministry of Youth, Education and Sport, Czech Republic.
- 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.
- Korea Advanced Institute of Science and Technology (KAIST).

## Membership in Scientific Councils

- Barcelona Media Technology Centre, 2010–14.
- MSTIC Pole of Grenoble University, federating the local mathematics and computer science and technology research, 2014–15.
- Université Joseph Fourier, Grenoble (substitute member), 2011–15.

## Membership in Recruitment Committees

- Junior Professorship (CPJ) at INSA Lyon, 2023.
- Professorship at INP Toulouse, 2022.
- Professorship at Université de Rouen, 2020.
- 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, 2012–15.
- JMIV – Journal of Mathematical Imaging and Vision, 2009–15.
- IVC – Image and Vision Computing, 2006–15.
- 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

- 2024: Journées Scientifiques INRIA (INRIA Science Days), Grenoble, France.
- 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

- 2015: Journées Scientifiques INRIA (INRIA Science Days), Nancy, France.
- 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, 15, 16
ISPRS	Congress of the International Society for Photogrammetry and Remote Sensing	2008, 12
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	WS Vision Techniques Applied to the Rehabilitation of City Centres	2004
GBR	Workshop on Graph-based Representations in Pattern Recognition	2013
ORASIS	Journées Jeunes Chercheurs en vision par ordinateur	2005, 07, 09, 13, 15, 17, 19, 21
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	WS Computer Vision for Remote Sensing of the Environment	2011
ICIEV	International Conference on Informatics, Electronics & Vision	2012
QU3ST	WS 2.5D Sensing Technologies in Motion: The Quest for 3D	2012
MobiVis	Workshop on mobile vision and HCI	2012

## Reviewing

### Journals

- Nature.
- Environment and Planning B: Urban Analytics and City Science.
- 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.
- VISIP – 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.
- JOSIA – 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.
- JS – Journal of Sensors.
- 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 and Habilitation Committees

### Reviewer of Habilitation Theses

- Chaohui Wang, Université Paris-Est, 2021.
- Gilles Simon, Université de Lorraine, 2019.
- 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

- Sylvie Chambon, Université de Toulouse, 2020 (president of committee).
- Rémi Boutteau, Normandie Université, 2018 (president of committee).
- 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

- Torben Fetzner, University of Kaiserslautern-Landau, 2023.
- Nicolas Jacquelin, Université de Lyon, 2022.
- Toby Collins, Université Clermont Auvergne, 2021.
- Antoine André, Université Bourgogne Franche-Comté, 2021.
- Jordan Caracotte, Université de Picardie Jules Verne, 2021.

- Yilin Zhou, Université Paris-Est, 2019.
- Laura Fernández Julià, Université Paris-Est, 2018.
- Mathias Gallardo, Université Clermont Auvergne, 2018.
- Andrey V. Kudryavtsev, Université de Franche-Comté, 2017.
- Abdelkader Bellarbi, Université d'Evry Val d'Essonne, 2017.
- Yohan Salaün, Université Paris-Est, 2017.
- Liming Yang, Ecole Centrale de Nantes, 2016.
- Jan Heller, Czech Technical University, Prague, 2016.
- Danda Pani Paudel, Université de Bourgogne, 2015.
- 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, Ecole 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 Ménéchet, 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 Vandepoortaele, Institut National Polytechnique de Toulouse, France, 2006.
- Benjamin Albouy, Université d'Orléans, France, 2006.
- Eric Royer, Université Blaise Pascal, Clermont-Ferrand, France, 2006.
- Rada Stegorean, Institut National Polytechnique de Grenoble, France, 2006.
- John Mallon, Dublin City University, Ireland, 2005.
- Diego Ortín Trasobares, University of Zaragoza, Spain, 2005.
- Branislav Mičušík, Czech Technical University, Prague, 2004.
- Sébastien Cornou, Université Blaise Pascal, Clermont-Ferrand, France, 2004.
- Carlos Hernández Esteban, Ecole Nationale Supérieure des Télécommunications, France, 2004.

### **Member of PhD Committees**

- Devesh Adlakha, Université de Strasbourg, 2022 (president of committee).
- Mathieu Labussière, Université Clermont Auvergne, 2021.
- Shiwei Li, Ecole Centrale de Lyon, 2021.
- Lucas Foulon, Université de Lyon, 2020.
- Julien Salotti, Université de Lyon, 2019 (president of committee).
- Fatima Aziz, Université de Limoges, 2018 (president of committee).
- Sokèmi René Emmanuel Datondji, Université de Rouen, 2017 (president of committee).
- Julian Quiroga, Grenoble University, 2014 (president of committee).
- Lilian Calvet, Université de Toulouse, 2014 (president of committee).
- Jordi Sanchez-Riera, Grenoble University, 2013 (president of committee).
- Marion Decrouez, Grenoble University, 2013 (president of committee).
- David Ok, Ecole des Ponts ParisTech, 2013 (president of committee).
- Florian Bugarin, Ecole des Mines d'Albi, 2012 (president of committee).
- Sacha Bernet, Université de Haute-Alsace, Mulhouse, 2012.
- Jérôme Courchay, Ecole des Ponts ParisTech, 2011.
- John Ruiz-Hernandez, Grenoble University, 2011 (president of committee).
- Daniela Craciun, Télécom ParisTech, 2010 (president of committee).
- 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

- Mathilde Boissier (post-doc, graduated from École Polytechnique), 2021–23.
- Fausto Lo Feudo (post-doc, graduated from Université Lille Nord de France), 2015–19.
- Thomas Capelle (post-doc), 2017–18.
- Emna Jribi (engineer), 2016–17.
- 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

- Jérémie Klein, 2023–.
- Emmanuel Krieger, 2022–.
- Alexandre Borthomieu, 2020–.
- Olivier Mauviel, 2020–23.
- Luciano Gervasoni, 2015–18.
- Thomas Capelle, 2013–17.
- 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**

- Ariane Dauvergne (Grenoble INP), 2022+23.
- Joanna Maurin (CentraleSupélec & ESSEC), 2020.
- Olivier Mauviel (ENS Cachan), 2020.
- Valentin Guimont (Grenoble University), 2020.
- Samba Diop (Grenoble University), 2018.
- Lucas Rezakhanlou (ECE Paris), 2017.
- Songyou Peng (Erasmus Mundus ViBOT), 2016 and 17.
- Julien Armand (Grenoble University), 2015–16.
- Huu Phuoc Nguyen (Grenoble University), 2015–16.
- Martí Bosch (Grenoble University), 2015–16.
- 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.
- Brinduša 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 Verschuere (KU Leuven, Belgium), Final year project, 2000.
- Frank Althoff (University of Bielefeld, Germany), Bachelor project, 1996.

**Visitors**

- Byung-Kuk Seo, Post-doc at Fraunhofer Institute, Darmstadt, Germany, 2015 (1 week).
- 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).
- Kiyong 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. *Un aperçu historique de la géométrie pour la vision*. Journées Jeunes Chercheurs ORASIS, Carqueiranne, France, May 2023.
- P. Sturm. *Some General Considerations on Sustainable ICT*. CHIST-ERA – Annual Conference of the European Research Programme CHIST-ERA, 2020.
- 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

- P. Sturm. *Effets rebond – Efficience – Sobriété – Résilience – L’importance de la question qu’on se pose*. Journées plénières du GdR IG-RV (Informatique Géométrique et Graphique, Réalité Virtuelle et Visualisation), Lyon, 2023.
- P. Sturm. *Modèles et géométrie multi-vues pour caméras omnidirectionnelles*. Journée thématique inter-GdR Isis et Robotique “Vision omnidirectionnelle”, Paris, 2018.
- 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.

### Other talks

- General audience talk on “Environmental problems: what is blocking actions on them?”, Pint of Science, Grenoble, France, May 2022.
- Talk “Environmental problems: what is blocking actions on them?”, École Centrale de Lille, France, January 2022.
- Talk “Environmental challenges and what is blocking the action on them” given during a week-long seminar on the environmental impact of ICT organized by the EcoInfo network, Villard de Lans, France, June 2021.
- Round Table on “The role of scientists in the face of environmental challenges” (Rôle des scientifiques face aux enjeux environnementaux), Fête de la Science, October 2020.
- Seminar on “Environmental challenges and what is blocking the action on them”, ATD Quart Monde association, France, June 2020.
- Seminar on “Environmental challenges and what is blocking the action on them”, Université de Bourgogne, Le Creusot, France, June 2020.
- Course on “Environmental challenges and what is blocking the action on them”, Transition Camp, Forges, France, May 2020.
- Presentations to pupils explaining the “job” of scientist, given at the middle schools of Villard-Bonnot and Crolles, France, February 2020.
- **Between May and July 2019, I made a “Tour de France” by bicycle, to raise awareness on environmental issues. During this trip, I gave a general audience talk entitled “Environmental challenges and what is blocking the action on them” in ten installments of Inria research centers (Sophia Antipolis, Montpellier, Bordeaux, Rennes, Saclay, Rocquencourt, Paris, Nancy, Lyon, Grenoble).**

- Talk “Environmental challenges and what is blocking the action on them” given during a week-long seminar on the environmental impact of ICT organized by the EcoInfo network, Autrans, France, September 2019.
- Talk on the environmental impact of ICT given during a training week of high school teachers of the Hauts-de-France Region, Lille, France June 2019.
- Czech Technical University, Prague, Czech Republic, April 2016.
- LE2I, Université de Bourgogne, France, December 2015.
- 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 responsible 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. T. Birdal, B. Busam, N. Navab, S. Ilic, P. Sturm. *Generic Primitive Detection in Point Clouds Using Novel Minimal Quadric Fits*. In *PAMI – IEEE Transactions of Pattern Analysis and Machine Intelligence*, 42(6):1333–1347, 2020.
2. A. Kudryavtsev, V. Guelpa, P. Rougeot, O. Lehmann, S. Dembele, P. Sturm, N. Piat. *Autocalibration method for scanning electron microscope using affine camera model*. In *Machine Vision and Applications*, 31(7):1–15, 2020.
3. T. Capelle, P. Sturm, A. Vidard and B. Morton. *Calibration of the Tranus land use module: Optimisation-based algorithms, their validation, and parameter selection by statistical model selection*. In *Computers, Environment and Urban Systems*, 77:1–13, 2019.
4. R. Boutteau, P. Sturm, P. Vasseur and C. Demonceaux. *Circular Laser/Camera-Based Attitude and Altitude Estimation: Minimal and Robust Solutions*. In *JMIV – Journal of Mathematical Imaging and Vision*, 60(3):382–400, 2018.
5. S. Ramalingam and P. Sturm. *A Unifying Model for Camera Calibration*. In *PAMI – IEEE Transactions of Pattern Analysis and Machine Intelligence*, 39(7):1309–1319, 2017.
6. T. Capelle, P. Sturm and A. Vidard. *Formulating LUTI Calibration as an Optimisation Problem: Example of Tranus Shadow Price Estimation*. In *Procedia Engineering*, 115:12–20, 2015.
7. 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*, 37(5):987–1000, 2015.
8. M. Díaz and P. Sturm. *Estimating Photometric Properties from Image Collections*. In *Journal of Mathematical Imaging and Vision*, 47(1-2):93–107, 2013.
9. 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.
10. 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.

11. 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.
12. 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.
13. 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.
14. 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.
15. 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.
16. 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.
17. 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.
18. 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.
19. T. Pribanić, P. Sturm and S. Peharec. *Wand Based Calibration of 3D Kinematic System*. In *IET Computer Vision*, 3(3), 124-129, 2009.
20. 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.
21. 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.
22. 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.
23. 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.
24. 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.
25. 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.
26. 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.
27. O. Chum, T. Pajdla and P. Sturm. *The Geometric Error for Homographies*. In *CVIU – Computer Vision and Image Understanding*, 97(1), 86-102, 2005.
28. T. Rodriguez, P. Sturm, P. Gargallo, N. Guilbert, A. Heyden, J.M. Menendez and J.I. Ronda. *Photorealistic 3D Reconstruction from Handheld Cameras*. In *MVA – Machine Vision and Applications*, 16(4), 246-257, 2005.

29. P. Sturm and S. Ramalingam. *Géométrie d'images multiples pour des modèles de caméra généraux*. In *Traitement du Signal*, 22(5), 483-495, 2005.
30. 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.
31. A. Bartoli and P. Sturm. *The 3D Line Motion Matrix and Aligement of Line Reconstructions*. In *IJCV – International Journal of Computer Vision*, 57 (3), 159-178, 2004.
32. 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.
33. 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.
34. 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.
35. 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.
36. P. Sturm. *Self-Calibration of a Moving Zoom-Lens Camera by Pre-Calibration*. In *IVC – Image and Vision Computing*, 15 (8), 583-589, 1997.
37. R.I. Hartley and P. Sturm. *Triangulation*. In *CVIU – Computer Vision and Image Understanding*, 68 (2), 146-157, 1997.

#### **Journals without Peer-Reviewing:**

1. K. Tombre, L. Quan, R. Horaud, P. Gros, C. Schmid and P. Sturm. *In Memoriam Roger Mohr*. In *1024 – Bulletin de la Société Informatique de France*, 11, 107-114, 2017.
2. 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. Sturm, *Image Geometry*. In *Omnidirectional Vision: From Theory to Applications*, P. Vasseur and F. Morbidi (eds.), ISTE, 2023 (to appear).
2. P. Sturm. *Calibration of a non-single viewpoint system*. In *Computer Vision: A Reference Guide*, K. Ikeuchi (ed.), Springer Verlag, 2020. (Update of version published in 2014).
3. P. Sturm. *Omnidirectional vision*. In *Computer Vision: A Reference Guide*, K. Ikeuchi (ed.), Springer Verlag, 2014.
4. P. Sturm. *Pinhole camera model*. In *Computer Vision: A Reference Guide*, K. Ikeuchi (ed.), Springer Verlag, 2014.
5. P. Sturm. *Optical axis*. In *Computer Vision: A Reference Guide*, K. Ikeuchi (ed.), Springer Verlag, 2014.
6. P. Sturm. *Focal length*. In *Computer Vision: A Reference Guide*, K. Ikeuchi (ed.), Springer Verlag, 2014.
7. P. Sturm. *Fisheye lens*. In *Computer Vision: A Reference Guide*, K. Ikeuchi (ed.), Springer Verlag, 2014.
8. P. Sturm. *Calibration of a non-single viewpoint system*. In *Computer Vision: A Reference Guide*, K. Ikeuchi (ed.), Springer Verlag, 2014.
9. P. Sturm. *Image plane*. In *Computer Vision: A Reference Guide*, K. Ikeuchi (ed.), Springer Verlag, 2014.

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2. O. Mauviel, J.-Y. Courtonne, G. Mandil, P. Sturm. *Parameter reconciliation for designing biophysically consistent socio-technical alternatives*, ISIE – International Conference on Industrial Ecology, Leiden, Netherlands, 2023.
3. A. Borthomieu, J.-Y. Courtonne, V. Jost, E. Krieger, G. Mandil, M. Mangeot, P. Sturm. *Exploring the French economy with physical supply-use tables*, ISIE – 14th ISIE SEM Conference – Transforming socio-economic metabolism in times of multiple crises, Vienna, Austria, 2022.
4. E. Krieger, M. Mangeot, J.-Y. Courtonne, G. Mandil, P. Sturm. *A modelling tool for designing urban mobility alternatives and evaluating their direct and indirect environmental impacts*, International Conference on 'Future is Urban', Ahmedabad, India, 2021.
5. S. Peng, P. Sturm. *Calibration Wizard: A Guidance System for Camera Calibration Based on Modelling Geometric and Corner Uncertainty*, ICCV – International Conference on Computer Vision, Seoul, South Korea, 1497–1505, 2019.
6. L. Gervasoni, S. Fenet, R. Perrier, P. Sturm. *Convolutional neural networks for disaggregated population mapping using open data*, IEEE International Conference on Data Science and Advanced Analytics, Turin, Italy, 2018.
7. T. Birdal, B. Busam, N. Navab, S. Ilic, P. Sturm. *A Minimalist Approach to Type-Agnostic Detection of Quadrics in Point Clouds*, CVPR – IEEE Conference on Computer Vision and Pattern Recognition, Salt Lake City, Utah, 3530–3540, 2018.
8. L. Gervasoni, M. Bosch, S. Fenet, P. Sturm. *Calculating spatial urban sprawl indices using open data*. 15th International Conference on Computers in Urban Planning and Urban Management, Adelaide, Australia. 2017.
9. T. Petković, T. Pribanić, M. Donlić, P. Sturm. *Efficient Separation between Projected Patterns for Multiple Projector 3D People Scanning*. PeopleCap ICCV-Workshop: Capturing and modelling human bodies, faces and hands, Venice, Italy, 2017.
10. L. Gervasoni, M. Bosch, S. Fenet, P. Sturm. *A framework for evaluating urban land use mix from crowd-sourcing data*. 2nd International Workshop on Big Data for Sustainable Development, Washington DC, United States, 2016.
11. T. Capelle, P. Sturm, A. Vidard, B. Morton. *Optimisation-Based Calibration and Model Selection for the Transus Land Use Module*. 14th World Conference on Transport Research, Shanghai, China, 2016.
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13. T. Capelle, P. Sturm, A. Vidard, B. Morton. *Contributions to the calibration of integrated land use and transportation models*. 14th International Conference on Computers in Urban Planning and Urban Management, Boston, United States, 2015.
14. T. Capelle, P. Sturm, A. Vidard, B. Morton. *Formulating LUTI Calibration As an Optimisation Problem: Estimation of Transus Shadow Price and Substitution Parameters*. AAAI Workshop on Computational Sustainability, Austin, Texas, 2015.
15. N. Coulombel, P. Sturm. *A Survey on the Calibration and Validation of Integrated Transportation and Land Use Models*. 62nd Annual North American Meetings of the Regional Science Association International, Portland, Oregon, United States, 2015.
16. T. Capelle, P. Sturm, A. Vidard. *Formulating LUTI calibration as an optimization problem: example of Transus shadow-price estimation*. Symposium “Towards integrated modelling of urban systems”, Lyon, France, 2014.
17. 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.
18. 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.
19. 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.
20. C. Unger, E. Wahl, P. Sturm, and S. Ilic. *Stereo Fusion from Multiple Viewpoints*. DAGM–OAGM Joint Pattern Recognition Symposium, Graz, Austria, 2012.
21. 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.
22. 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.
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25. P. Sturm. *A historical survey of geometric computer vision*. CAIP – International Conference on Computer Analysis of Images and Patterns, Seville, Spain, 1-8, 2011.
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31. 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.
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33. 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.
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39. 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.
40. 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.
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59. 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.
60. 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.
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