

CURRICULUM VITAE Marc Pollefeys

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Full Professor
Dept. of Computer Science
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Personal information

Born May 1, 1971, in Anderlecht(Belgium)
Belgian nationality

Education

1999 Ph.D. Electr. Eng. K.U.Leuven (greatest distinction with the congratulations of the board)
1994 M.S. Electr. Eng. K.U.Leuven

Professional experience

8/2007 - Full Professor
Computer Science Department, ETH Zürich
7/2009 - Adjunct Professor
Computer Science Department, University of North Carolina – Chapel Hill
2/2007 - 4/2007 Visiting Associate Professor
Computer Science Department, Stanford University
7/2005 - 6/2009 Associate Professor
Computer Science Department, University of North Carolina – Chapel Hill
7/2002 - 6/2005 Assistant Professor
Computer Science Department, University of North Carolina – Chapel Hill
10/1999-8/2002 Post-doctoral researcher and research team leader (see projects and grants K.U.Leuven, p.5)
Center for Processing of Speech and Images, Dept. of Electrical Engineering, K.U.Leuven
9/1994-9/1999 Research Assistant
Center for Processing of Speech and Images, Dept. of Electrical Engineering, K.U.Leuven

Awards

2012 IEEE Fellow
2011 DAGM prize (best paper award)
2011 Google Research Award
2010 Google Research Award
2008 ISPRS Best Poster Award
2008 CVPR Outstanding Reviewer Award
2008 ERC Starting Grant
2007 CVPR Best Demo Award
2005 Packard Fellowship
2003 NSF CAREER award
2001 CIPA Best Poster Award
1999 BARCO Scientific Prize (for Ph.D. dissertation)
1999 DAGM prize (best paper award)
1998 David Marr prize in Computer Vision (best paper award ICCV)
1989 Third prize in Flemish Mathematical Olympiades

Professional activities

- **Member editorial board**

Encyclopedia of Computer Vision, 2009-present.
IPSJ Transactions on Computer Vision and Applications, 2009-present
Intelligent Service Robotics, 2007-present.
International Journal on Computer Vision (IJCV), 2006-present.
Transactions on Pattern Analysis and Machine Intelligence (PAMI), 2005-2009.
Foundations and Trends in Computer Graphics and Computer Vision, 2003-present.

- **Editor**

3D Structure from Multiple Images, Marc Pollefeys, Luc Van Gool, Andrew Zisserman, Andrew Fitzgibbon (Eds.), Lecture Notes in Computer Science, Vol. 2018, Springer-Verlag.
Special Issue of the International Journal on Computer Vision (IJCV) on Vision and Modelling of Dynamic Scenes, Andrew Fitzgibbon, Marc Pollefeys, Luc Van Gool, Andrew Zisserman (Eds.), Vol. 68, Nr. 1.
3D Imaging for Safety and Security, Anreas Koschan, Marc Pollefeys, Mongi Abidi (Eds.), Kluwer/Springer, 2007.
3D Image and Video Processing, Peter Eisert, Stefano Tubaro, Marc Pollefeys (guest editors), *Special Issue of EURASIP Journal on Image and Video Processing*

- **Conference organizer**

General Chair for the European Conf. on Computer Vision (ECCV) 2014
General Chair for the Int. Conf. on 3D Data Imaging, Modeling, Processing, Visualization and Transmission (3DIMPVT) 2012
Program Chair for IEEE Conf. on Computer Vision and Pattern Recognition (CVPR) 2009
General/Program Chair for 3D Data Processing Visualization and Transmission (3DPVT) 2006
Workshop Chair for IEEE Conf. on Computer Vision and Pattern Recognition (CVPR) 2005

- **Workshop organizer**

Dagstuhl Seminar on Outdoor and Large-Scale Real-World Scene Analysis, B. Rosenhahn, M. Pollefeys, F. Dellaert, JM. Frahm, 2011.
Dagstuhl Seminar on Dynamic Maps, C. Brenner, W. Burgard, M. Pollefeys, C. Stiller, 2010.
Workshop on Mobile Vision, G. Hua, Y. Fu, Z. Zhang, M. Turk, M. Pollefeys, 2010.
Workshop on Computer Vision on GPU, J.-M. Frahm, M. Pollefeys, H. Bischof, 2010.
Workshop on Computer Vision on GPU, J.-M. Frahm, M. Pollefeys, M. Shah, 2008.
Workshop on Visual Representations and Modeling of Large-Scale environments (VRML), J.-M. Frahm, M. Pollefeys, F. Dellaert, J. Kosecka, 2007.
Workshop on Omnidirectional Vision, Camera Networks and Non-traditional Sensors (OMNIVIS), C. Geyer, M. Pollefeys and X. Ying (organizers), Beijing, China, Oct 21, 2005.
Workshop on Advanced 3D Imaging for Safety and Security, A. Koschan, M. Abidi and M. Pollefeys (organizers), June 25, 2005.
Vision techniques for digital architectural and archaeological archives, H. Chikatsu, G. Fangi, M. Pollefeys, G. Zhou (organizers), 1-3 July 2003.
Vision and Modelling of Dynamic Scenes, A. Fitzgibbon, M. Pollefeys, L. Van Gool, A. Zisserman (organizers), Copenhagen, Denmark, June 2, 2002.
European Workshop on Structure from Multiple Images of Large-scale Environments (SMILE2), M. Pollefeys, L. Van Gool, A. Zisserman, A. Fitzgibbon (organizers), Dublin, Ireland, 2000

- **Special session organizer**

Special Session at the Int. Symp. on 3D Data Processing Visualization Transmission 2004.

- **Conference/Workshop Program Committee member**

Int. Conf. on Computer Vision (ICCV) 2003, 2005, 2007, 2009, 2011 (program board)
Int. Conf. on Computer Vision and Pattern Recognition (CVPR) 2003, 2004, 2006, 2007, 2008, 2009 (program chair), 2010 (area chair), 2011, 2012 (area chair)

European Conference on Computer Vision (ECCV) 2002, 2004, 2006 (area chair), 2008 (area chair), 2010, 2012 (area chair), 2014 (general chair)

Siggraph 2011

Siggraph Asia 2008

Asian Conf. on Computer Vision (ACCV) 2006, 2010 (area chair)

International Conference on 3D Digital Imaging and Modeling 2001, 2003, 2005, 2007, 2009

Workshop on Reconstruction and Modeling of Large-Scale 3D Virtual Environments (RMLE) 2010

IEEE Embedded Computer Vision Workshop 2009

2nd ACM/IEEE International Conference on Distributed Smart Cameras (ICDSC-08)

Workshop on Omnidirectional Vision, Camera Networks and Non-traditional Sensors (OMNIVIS) 2007, 2009

Workshop on Benchmarking Calibration, Orientation and Surface Reconstruction from Images 2005, 2007

Workshop Beyond Multiview Geometry: Robust Estimation and Organization of Shapes from Multiple Cues 2007

Int. Workshop on 3D Virtual Rec. and Vis. of Complex Architectures - 3D-Arch'2005, 2007

Indian Conference on Computer Vision, Graphics & Image Processing 2006 (ICVGIP)

ISPRS Commission III Symposium - Photogrammetric Computer Vision 2002, 2006

ISPRS Commission V Symposium 2002, 2006

International Conference on Pattern Recognition 2006 (ICPR)(Computer Vision Track)

Workshop on 25 Years of RANSAC 2006

IEEE Workshop on Three-Dimensional Cinematography (3DCINE'06)

Workshop on Dynamical Vision 2005, 2006

IEEE International Workshop on Projector-Camera Systems 2005, 2006 (ProCams)

Virtual Systems and Multi-Media 2005

International Workshop on Real-time 3D Sensors and Their Use 2004 (co-located with CVPR)

European Conference on Visual Media Production 2004, 2005

International Symposium on Visual Computing 2005

Workshop on Motion and Video Computing (MOTION) 2005

Euroconference on Virtual Archaeology - VAST 2001, 2003, 2004, 2005

Vision, Modeling and Visualization (VMV) 2004, 2005

International Symposium on 3D Data Processing Visualization Transmission 2004

ISPRS Congress 2004

Workshop on Higher-Level Knowledge in 3D Modeling & Motion Analysis 2003

EuroGraphics 2003

GRAPHITE 2003

ISPRS Conference on Photogrammetric Image Analysis 2003

Workshop on Vision and Modelling of Dynamic Scenes 2002

IEEE Workshop on Stereo and Multi-Baseline Vision 2001

International Symposium on Virtual and Augmented Architecture 2001

European Workshop on Structure from Multiple Images of Large-scale Environments 2000

● **Journal/Conference reviewer**

International Journal on Computer Vision; IEEE Transactions on Pattern Analysis and Machine Intelligence; Computer Vision and Image Understanding; Image and Vision Computing Journal; Machine Vision and Applications; IEE Proceedings - Vision, Image and Signal Processing; Computer Graphics and Applications; The Journal of Visualization and Computer Animation; The Journal of Mathematical Imaging and Vision; IEEE Transactions on Image Processing; IEEE Transactions on Robotics and Automation; IEEE Transaction on Systems, Man and Cybernetics; IEEE Transactions on Circuits and Systems for Video Technology; IEEE Transactions on Visualization and Computer Graphics; IEEE Transactions on Biomedical Engineering; ISPRS Journal of Photogrammetry and Remote Sensing; Photogrammetric Engineering and Remote Sensing; International Journal of Shape Modeling; Pattern Recognition Letters; Journal of Oceanographic Engineering; Presence

SIGGRAPH; Eurographics; Eurographics Rendering Workshop; I3D; American Control Conference

- **Panels/project review**

FWO Computer Science panel (2010-present), NSF Robotics and Human Augmentation/Computer Vision (3 panels), Computer Graphics.

Army Research Office; Israeli Science Foundation; Indian Swiss Joint Research Programme; Canada Foundation for Innovation; EPSRC; Research Grants Council of Hong Kong; Kentucky Science & Engineering Foundation; Netherlands Organisation for Scientific Research; Research Office Limburgs Universitair Centrum, Österreichische Forschungsförderungsgesellschaft, Danish Agency for Science, Technology and Innovation, Qatar National Research Fund.

- **Invited conference/workshop speaker**

Zurich.Minds 2011

Symposium on Geometry Processing 2012 (**keynote**)

VipIMAGE 2011

EuroGraphics Symposium on Rendering 2011 (**keynote**)

ORASIS 2011 **keynote**

International Symposium on Visual Computing 2010 **keynote**

Workshop on Recent Trends in Computer Vision 2010

European Conference on Visual Media Production 2009 (**keynote**)

International Symposium of Robotics Research 2009

Meeting on Image Recognition and Understanding 2009 (**keynote**)

StratAG meeting 2009

Digital Media and its Applications in Cultural Heritage 2008 (**keynote**)

Int. Fall Workshop on Vision, Modeling and Visualization 2008 (U. Konstanz)

3D Data Processing Visualization and Transmission 2008 (GeorgiaTech)

3DTV-CON 2008 (**keynote**)

FIT-IT Visual Computing 2007 (**keynote**)

Dagstuhl Seminar on Visual Computing (**keynote**)

Workshop on Mathematical Methods in Computer Vision 2006 (Banff Int. Research Station)

Packard Fellows Meeting 2006

Vision colloquium 2006 (TU Graz)

Workshop on Comp. Vision for Interactive and Intelligent Environments 2005 (Univ. of Kentucky)

CVR Conference on Computational Vision in Biological and Machine Systems 2005 (York Univ.)

Int. Fall Workshop on Vision, Modeling and Visualization 2004 (Stanford Univ.)

Int. Symp. on 3D Data Processing, Visualization and Transmission 2004

Advanced Concepts for Intelligent Vision Systems 2004 (**keynote**)

DIMACS Workshop on Surface Reconstruction 2003

East-West Vision 2002

IMAGINA 2002 (**keynote**)

International Symposium on Virtual and Augmented Architecture 2001 (**keynote**)

Congres of the International Society on Photogrammetry and Remote Sensing 2000

Symposium Virtual Reality, Dutch Mathematisch Congres 2000

Asian Conference on Computer Vision 2000

- **Conference Courses and Summer/Winter Schools**

International Computer Vision Summer School 2010 (lecturer)

Vision and Sport Summer School 2009 (lecturer)

Course on *Video-based rendering* at SIGGRAPH 2005 (co-organizer/lecturer).

Course on *3D modelling with a hand-held camera* at International Symposium on 3D Data Processing Visualization Transmission 2004 and Congres of ISPRS 2004 (organizer/lecturer).

Course on *3D Models from Photo and Video* at Siggraph 2003 (organizer/lecturer with Luc Van Gool)

Course on Interactive Geometric and Scientific Computations Using Graphics Hardware at Siggraph 2003 (lecturer)

Short course on *Multiple view geometry* CVPR2003 (co-organizer/lecturer with Andrew Zisserman)
 Short course on *Multi-View Geometry* CVPR2001 (co-organizer/lecturer with Anders Heyden)
 Course on *3D modelling with a hand-held camera* at Siggraph 2000, 2001 and 2002 (organizer/lecturer)
 Course on *acquisition and rendering of surface lightfields/Image-based modeling* Siggraph 2001 and 2002 (lecturer)
 Tutorial on *3D modelling from images* at ECCV2000 and 3DIM 2001, 2003 (organizer/lecturer)

- **Invited research presentations**

UC Berkeley (09/10), Nokia Research Palo Alto (09/11), Universiteit van Amsterdam (09/11), Lund University (04/11), T.U.Munich (02/11), Leica Geosystems (01/11), IRISA Rennes (12/10), Google Mountain View (12/10), HP Labs (12/10), EPFLausanne (10/10), Raindrop Geomagic (08/10), University of Basel (03/10), University of Tokyo (08/09), Nokia Research Palo Alto (02/09), Microsoft Research Redmond (11/08), Honda Research Mountain View (08/08), NavTeq Chicago (08/08), ETH Zürich (EE) (05/08), University of Zürich (GIS) (02/08), ETH Zürich (Statistics) (02/08), INRIA-Grenoble (02/08), Daimler (12/07), Université de Montréal (08/07), McGill (08/07) Google TechTalk (05/07), Stanford (05/07), University of California at San Diego (04/07), FX Palo Alto Lab (03/07), Navy Postgraduate School (03/07), Stanford (03/07), Industrial Light & Magic (03/07), Georgia Tech (01/07), Columbia University (12/06), New York University (12/06), Max Planck Institute - Saarbrücken (distinguished lecture) (09/06), ETH Zürich (03/06), INRIA-Grenoble (12/05), Microsoft Research Redmond (11/05), University of Washington (11/05), K.U.Leuven (07/05; 12/03; 12/02), Limburg University Center (07/05), Stanford University (03/05), General Electric CRD (02/05), Rensselaer Polytechnic Institute (02/05), John Hopkins University (02/05), University of California at Berkeley (11/04), Wright-Patterson Airforce Base/Wright State University (10/04), University of Illinois at Urbana Champaign (09/04), University of Oxford (08/04), Microsoft Research Cambridge (08/04), AlphaTech (08/04), University of Pennsylvania (GRASP seminar) (04/04), University of Maryland at College Park (04/04), Duke (03/04), Carnegie Mellon University (RI Seminar) (02/04), UNC Research Laboratory for Archaeology (02/04), North Carolina State University (10/03), Technical University of Denmark (10/03), Siemens SCR (05/03), Princeton University (04/03), Sarnoff (04/03), MIT (11/02), GeorgiaTech (11/02), Imperial College (08/02), Max Planck Institute - Saarbrücken (06/02), University of North Carolina - Chapel Hill (02/02), Technical University Graz (01/02), UCLA (07/01), Prague Technical University (05/01), Chinese University of Hong-Kong (01/00), Erlangen-Nürnberg University (10/98), Gunma University (11/98), Oxford University (03/98).

- **Guest class lectures**

Stanford ('07), GeorgiaTech ('02), ENST-Paris ('02), ETHZurich ('00).

- **Ph.D., M.S., HDR committee member**

Adrien Bartoli, HDR, Univ. Blaise Pascal Clermont-Ferrand, 9 Jun. 2008

Amael Delaunoy, Ph.D., Universite de Grenoble, 2 December 2011

Gijs Dubbelman, Ph.D., Universiteit van Amsterdam, 6 September 2011

Olivier Teboul, Ph.D., Ecole Central (Paris), 1 June 2011

Kai Ni, Ph.D., GeorgiaTech, 21 April 2011

Olof Enqvist, Ph.D., Lund University, 8 April 2011

Manuel Yguel, Ph.D., INRIA-Grenoble, 11 December 2009

Patrick Labatut, Ph.D., Université Paris 7, 14 September 2009

Kevin Koeser, Ph.D., Univ. Kiel, 20 March 2009

Mathieu Perriollat, Ph.D., Univ. Blaise Pascal Clermont-Ferrand, 14 Nov. 2008

Daniel Martinec, Ph.D., CTU Prague, June 2008

Yasu Furukawa, Ph.D., UIUC, 7 Apr. 2008

Pau Gargallo, Ph.D., INRIA-Grenoble, 11 Feb. 2008

Daniel Wedge, Ph.D., University of Western Australia, 2007

Kemal Egemen Ozden, Ph.D., KULeuven, Oct./Nov. 2007.

Henrik Aanaes, Ph.D. Technical University of Denmark, 20 Oct. 2003.

Oscar Pizaro, Ph.D., MIT/WHOI, 13 Aug. 2004.
Srikumar Ramalingam, M.S., UCSC, Sept. 2004.
Jean-Sébastien Franco, Ph.D., INRIA-grenoble, 13 Dec. 2005
David Neil Ross McKinnon, Ph.D., University of Queensland, 2006

David Gallup, Ph.D., UNC, August 2010 (**advisor**)
Brian Clipp, Ph.D., UNC, August 2010 (**advisor**)
Changchang Wu, Ph.D., UNC, August 2010 (**advisor**)
Tyler Johnson, Ph.D., UNC, 9 Nov. 2009
Li Guan, Ph.D., UNC, 14 Aug. 2009 (**advisor**)
Ahad Harati, Ph.D. ETH, 28 Aug. 2008
Hua Yang, Ph.D. UNC, 25 Jul. 2008
Seon Joo Kim., Ph.D. UNC, 24 Jul. 2008 (**advisor**)
Sudipta Sinha, Ph.D. UNC, 4 Aug. 2008 (**advisor**)
Remo Ziegler, Ph.D., ETH, 23 May 2008
Eric Bennett, Ph.D., UNC, 22 Mar. 2007
Jingyu Yan, Ph.D., UNC, 28 Nov. 2006 (**advisor**)
Greg Coombe, Ph.D., UNC, 20 Nov. 2006
Scott Larsen, Ph.D., UNC, 27 Oct. 2006
Sang-Uok Kum, Ph.D., UNC, 5 May 2006
Kok-Lim Low, Ph.D., UNC, 16 Aug. 2005

- **Membership**

senior member of IEEE and member of ACM Siggraph.

- **Misc**

member of Interuniversitäre Partnerschaft für Erdbeobachtung und Geoinformatik (2008-present)
Research Associate of the Research Laboratory for Archaeology (UNC) (2004-present)
Chair of ISPRS intercommission III/V workinggroup on Image Sequences (2000-2004/2004-2008).
Member of Honorary Committee Imagina 2003, 2004.

Courses taught

- 3D Photography, Spring 2011 (co-taught with Kevin Köser)
- Computer Vision, Fall 2010 (co-taught with Vittorio Ferrari, Luc Van Gool)
- Linear Algebra, Fall 2010 (co-taught with Emmanuel Kowalski)
- Visual Computing, Fall 2010 (co-taught with Markus Gross)
- Visual Computing, Spring 2010 (co-taught with Markus Gross).
- Computational Photography and Video, Spring 2010
- Linear Algebra, Fall 2009 (co-taught with Daniel Kressner)
- Computational Photography and Video, Spring 2009 (co-taught with Gabriel Brostow).
- Visual Computing, Spring 2009 (co-taught with Markus Gross).
- Linear Algebra, Fall 2008 (co-taught with Daniel Kressner).
- 3D Photography, Fall 2008.
- Computational Photography and Video, Spring 2008 (co-taught with Gabriel Brostow)
- 3D Photography, Fall 2007.

- Computer Vision (Comp256), Spring 2006, Fall 2003.
- Recent advances in computer vision and image analysis (Comp255), Fall 2005.
- Computer Organization (Comp120), Spring 2005, Spring 2004.
- 3D Urban Modeling (Comp790-089), Fall 2006.
- 3D Photography (Comp290-089), Fall 2004.
- Multiple View Geometry (Comp290-089) , Spring 2003.
- Computer Vision (Inter-University Graduate Course with Luc Van Gool), Fall 2001.
- Summer School on Shape in Computer Vision and Graphics, ETHZürich, 2000 (lecturer).

Current Ph.D./M.S. student supervision

- **Rahul Raguram** (UNC, co-advised with Jan-Michael Frahm), Fall 2007-present, current research topic: Structure from motion.
- **Roland Angst** (ETH), Fall 2007-present, camera network calibration.
- **Georges Baatz** (ETH), Fall 2007-present, wide-area structure from motion and localization.
- **Jens Puwein** (ETH), Fall 2008-present, multi-camera calibration and person tracking
- **Gim Hee Lee** (ETH), Spring 2009-present, visual simultaneous localization and mapping for autonomous MAV
- **Aparna Taneja** (ETH), Spring 2009-present, modeling of foreground objects
- **Olivier Saurer**, (ETH), Fall 2009-present, indoor modeling and recognition
- **Alexander Schwing** (ETH), Fall 2008-present, multi-object image segmentation
- **Bernhard Zeisl** (ETH), Spring 2010-present, robot vision and modeling
- **Petri Tanskanen** (ETH), Summer 2010-present, real-time robot vision
- **Lionel Heng** (ETH), Summer 2010-present, real-time vision-based navigation
- **Andrea Cohen** (ETH), Fall 2010-present, multi-camera person tracking
- **Fabio Maninchedda** (ETH), Spring 2011-present, stereo and 3DTV
- **Christian Häne** (ETH), Spring 2011-present, scene modeling with priors
- **Lorenz Meier** (ETH), Spring 2011-present, Autonomous MAV swarms

Postdoctoral advisees and senior researchers

- **Christopher Zach** (ETH), postdoc, 01/08-present, current reserch topic: urban 3D modeling.
- **Friedrich Fraundorfer** (ETH), postdoc, 05/07-present, current research topic: wide-area structure from motion and recognition.
- **Kevin Kooser** (ETH), postdoc, 04/09-present, current research topic: feature tracking.
- **Luca Ballan** (ETH), postdoc, 04/09-present, current research topic: people tracking and event visualization.

Graduated students and research group alumni

- **Jingyu Yan**, Ph.D. 2006, Articulated Non-rigid Shapes, Motions and Kinematic Chains From Video, currently with Amazon.
- **Seon Joo Kim**, Ph.D. 2008, Radiometric Calibration Methods from Image Sequences, currently research scientist at NUS with Michael Brown.
- **Sudipta Sinha**, Ph.D. 2008, Silhouettes for Calibration and Reconstruction from Multiple Views, currently with Microsoft Research.
- **Li Guan**, Ph.D. 2009, Multi-view Dynamic Scene Modeling, currently GE research.
- **Changchang Wu**, Ph.D. 2010, Geometry-driven feature detection for improving geometric reconstruction, postdoc at U. of Washington with Steve Seitz.
- **Brian Clipp**, Ph.D. 2010, Multi-Camera Simultaneous Localization and Mapping, currently with ARA.
- **David Gallup**, Ph.D. 2010, Efficient 3D Reconstruction of Large-Scale Urban Environments from Street-Level Video, currently with Google and U. of Washington.
- **Paul Merrell**, M.S., May 2007.
- **Sriram-Thirthala Venkata**, M.S., December 2005.
- **Jason Repko**, M.S., May 2005.
- **Jan-Michael Frahm**, post-doctoral researcher, 07/05-05/07. Currently assistant professor UNC.
- **Jean-Sébastien Franco**, 02/06-06/07, currently associate professor at the Université de Grenoble/INRIA.
- **Philippos Mordohai**, post-doctoral researcher, 08/05-07/07, currently assistant professor at Stevens Institute of Technology.
- **Gabriel Brostow**, post-doctoral research, 01/08-06/09, current assistant professor at University College London.
- **Roland Memisevic**, post-doctoral researcher, 02/10-12/10, currently assistant professor at University of Frankfurt.

Projects and grants

ETH

- *Nokia gift*, 2011, \$90k.
- *Google award*, 2010-2011, \$150k.
- *V-charge*, Co-PI (with PI Roland Siegwart, other partners VW, Bosch, University of Oxford, University of Parma, TU Braunschweig)
- *Terrain analysis, feature extraction and model deformation for cartographics generalisation and visualization*, Co-PI (PI Lorenz Hurni, Co-Pi Mark Pauly), SNF, 610kCHF.
- *Autonomous Vision-based Micro-helicopter*, PI (co-PI Roland Siegwart), 04/09-03/11, SNF, 210kCHF.
- *Visual cellphone localization using 3D models*, PI, 01/09-12/10, Nokia, \$150k (175kCHF)

- *sFly: Swarm of Micro Flying Robots*, Co-PI (with Roland Siegwart (PI), Elias Kosmatopoulos (co-PI TU Crete), Agostino Martinelli (co-PI INRIA), Jean-Dominique Decotignie (co-PI CSEM)), 440k Euro (720kCHF)
- *Multi-Object Motion Grouping for General Embedded Computer Vision*, Co-PI (with Gabriel Brostow, Andrew Blake), 08/08-07/11, Microsoft, 300kCHF.
- *Multi-view analysis of sports video*, PI, 09/08-08/10, CTI-LiberoVision, 350kCHF.
- *4DVideo*, PI, 03/08-03/13, ERC starting grant, 1.75MEuro (2.6MCHF).

UNC

- *BASE-IT*, Co-PI (with Henry Fuchs (PI), Greg Welch), 10/07-9/10, ONR, \$2,000,000.
- *Assist*, Co-PI (with Jan-Michael Frahm (PI), Svetlana Lazebnik), 8/07-12/08, DARPA, \$500,000.
- *3D from Video*, PI, 8/07-12/07, Lockheed-Martin, \$100,000.
- *Packard Fellowship for Science and Engineering*, recipient, The David and Lucile Packard Foundation, 11/05-10/10, \$725,000.
- *VACEIII: 3D Content Extraction from Video Streams*, PI, DTO, 10/06-10/08, \$1,000,000.
- *Transportable Computing Clusters for Real World Acquisition, Display, and Immersive Training*, Co-PI (with Henry Fuchs (PI), Greg Welch (Co-PI)), ONR, 04/06-06/07, \$133,000.
- *UrbanScape*, UNC PI, DARPA, 03/05-03/08, UNC budget \$1,300,000.
- *Geo*: Meshless wavelets and their application to terrain modeling*, Co-PI (with Jack Snoeyink (PI), Leonard McMillan, Wei Wang, Charles Chui, Wenjie He (Co-PIs)), DARPA, 03/05-02/10, \$2,300,000.
- *Calibration and 3D modeling from pan-tilt-zoom camera networks*, PI, Siemens Ph.D. student support, 08/04-08/05, \$31,000.
- *ITR: Converting 2D video to 3D with Applications to 3D-TV, Video Analysis and Compression*, PI, NSF, 08/03-07/06, \$286,000 (including REU supplement).
- *UrbanScape seedling*, UNC PI, DARPA, 07/03-06/04, \$120,000.
- *CAREER: Visual 3D Acquisition, Modeling and Rendering of the Real World*, PI, NSF, 02/03-02/08, \$400,000.

K.U.Leuven

- *ATTEST - Advanced Three-dimensional Television System Technology*, local project leader, European IST project, 03/02-02/04, local budget: approx. \$200,000.
- *Micro-Mechanisms and Adaptation of Micro-Cameras to Planetary Exploration*, consultant, ESA project, 1/02-12/02, approx. \$30,000.
- *Dynamic 3D multi camera setup*, personal equipment grant, FWO Fund for Scientific Research - Flanders, 01/02-12/02, approx. \$27,500.
- *InViews - Interactive and Immersive Video from Multiple Images*, local project leader, European IST project, 12/01-5/04, approx. \$350,000.
- *Combined geometric and image-based approaches to virtual and augmented reality*, co-principal investigator, Flemish FWO research project, 01/01-12/04, approx. \$110,000

- *3D Murale - 3D Measurements & Virtual Reconstruction of Ancient Lost Worlds of Europe*, local project leader, European IST project, 11/00-10/03, approx. \$290,000
- *BEYOND the Graphical User Interface*, local project leader, European ITEA project, 9/99-11/01, local budget: approx. \$400,000
- *VirtErf - Virtual Heritage*, local project leader, Flemish STWW project, 9/99-8/01, local budget approx. \$ 125,000
- *ROBUST - Payload Support for Planetary Exploration*, local project leader, ESA project, 3/99- .
- *Intelligent Mechatronic Systems*, workpackage leader, Belgian IUAP project, 01/97-12/01.
- *Combined geometric and image-based approaches to the acquisition of photo-realistic models from real-world 3D scenes*, competitive post-doctoral grant, recipient, FWO - Fund for Scientific Research - Flanders, 10/99-9/02.
- *Visual 3D reconstruction and recognition*, competitive Ph.D. grant, recipient, IWT - Institute for Promotion of Innovation by Science and Technology in Flanders, 01/95-12/98.

Publications (160+ refereed)

Journals

1. W. Gavião Neto, J. Scharcanskia, J.-M. Frahm, M. Pollefeys, "Hysteroscopy Video Summarization and Browsing by Estimating the Physician's Attention on Video Segments", *Medical Image Analysis Journal*, (accepted June 2011).
2. S. Thirthala, M. Pollefeys, "Radial Multi-focal Tensors (Applications to Omnidirectional Camera Calibration)", ***International Journal of Computer Vision***, (published online June 2011).
3. G. Baatz, K. Köser, D. Chen, R. Grzeszczuk, M. Pollefeys, "Leveraging 3D City Models for Rotation Invariant Place-of-Interest Recognition", ***International Journal of Computer Vision***, (accepted April 2011).
4. S. Sinha, J.-M. Frahm, M. Pollefeys, Y. Genc, Feature Tracking and Matching in Video Using Programmable Graphics Hardware, *Machine Vision and Application*, Vol. 22, Issue 1, January 2011.
5. L. Ballan, J. Puwein, G. Brostow, M. Pollefeys, Unstructured Video-Based Rendering: Interactive Exploration of Casually Captured Videos, *ACM Transactions on Graphics (SIGGRAPH 2010)*.
6. M. Pollefeys, J.-M. Frahm, F. Fraundorfer, C. Zach, C. Wu, B. Clipp and D. Gallup, "Challenges in wide-area structure-from-motion", *IPSP Transactions on Computer Vision and Applications*, Vol.2 (2010), pp.105-120.
7. D. Scaramuzza, F. Fraundorfer, and M. Pollefeys, "Closing the loop in appearance-guided omnidirectional visual odometry by using vocabulary trees", *Robotics and Autonomous Systems*, 58(6):820827, 2010.
8. J.-M. Frahm, M. Pollefeys, S. Lazebnik, C. Zach, D. Gallup, B. Clipp, R. Raguram, C. Wu, T. Johnson, Fast Robust Large-scale Mapping from Video and Internet Photo Collections, special issue 100 years of ISPRS of the *ISPRS Journal of Photogrammetry and Remote Sensing*, Vol. 65, Issue 6, November 2010.
9. L. Guan, J.-S. Franco, M. Pollefeys, "Probabilistic Multi-view Dynamic Scene Reconstruction and Occlusion Reasoning from Silhouette Cues", ***International Journal of Computer Vision***, Vol. 90, Number 3, pp. 283-303, 2010.

10. S. Sinha and M. Pollefeys, Camera Network Calibration and Synchronization from Silhouettes in Archived Video, **International Journal of Computer Vision**, Vol. 87, Number 3, pp. 266-283, 2010.
11. S. Sinha, D. Steedly, R. Szeliski, M. Agrawala, M. Pollefeys, Interactive 3D Architectural Modeling from Unordered Photo Collections, ACM Transactions on Graphics (SIGGRAPH ASIA 2008), 27(5), December 2008, pp. 159:1-10.
12. M. Pollefeys, D. Nister, J.-M. Frahm, A. Akbarzadeh, P. Mordohai, B. Clipp, C. Engels, D. Gallup, S.-J. Kim, P. Merrell, C. Salmi, S. Sinha, B. Talton, L. Wang, Q. Yang, H. Stewenius, R. Yang, G. Welch, H. Towles, Detailed Real-Time Urban 3D Reconstruction From Video, **International Journal of Computer Vision**, Vol. 78, Issue 2, Pages: 143 - 167, July 2008.
13. S.J. Kim, M. Pollefeys, Robust Radiometric Calibration and Vignetting Correction, **IEEE Trans. on Pattern Analysis and Machine Intelligence**, vol. 30, no. 4, pp. 562-576, Apr. 2008.
14. J. Yan, M. Pollefeys, A Factorization-Based Approach for Articulated Non-rigid Shape, Motion and Kinematic Chain Recovery From Video, **IEEE Trans. on Pattern Analysis and Machine Intelligence**, vol. 30, no. 5, pp. 865-877, May 2008.
15. S. Sinha, M. Pollefeys, Pan-Tilt-Zoom Camera Calibration and High-Resolution Mosaic Generation, *Computer Vision and Image Understanding*, 103(3), 170-183, 2006.
16. R. Yang, M. Pollefeys, A Versatile Stereo Implementation on Commodity Graphics Hardware, *Journal of Real-Time Imaging*, Volume 11, Issue 1, February 2005, Pages 7-18.
17. M. Pollefeys, L. Van Gool, M. Vergauwen, F. Verbiest, K. Cornelis, J. Tops, R. Koch, Visual modeling with a hand-held camera, **International Journal of Computer Vision** 59(3), 207-232, 2004.
18. R. Yang, M. Pollefeys, H. Yang, G. Welch, A Unified Approach to Real-Time, Multi-Resolution, Multi-Baseline 2D View Synthesis and 3D Depth Estimation using Commodity Graphics Hardware, *International Journal of Image and Graphics*, Vol. 4, No. 4 (2004) 627-651.
19. K. Landzettel, K. Arbter, B. Brunner, B.-M. Steinmetz, M. Pollefeys, M. Vergauwen, R. Moreas, F. Xu, L. Steinicke, B. Fontaine, "A Micro-Rover Navigation and Control System for Autonomous Planetary Exploration", *Advanced Robotics*, Vol. 18, No.3, pp.285-314, 2004.
20. M. Pollefeys, L. Van Gool, M. Vergauwen, K. Cornelis, F. verbiest, J. Tops, Image-based 3D Recording for Archaeological Field Work, *Computer Graphics and Applications (CGA)*, vol. 23, no. 3., May/June 2003, pp. 20-27.
21. M. Pollefeys and L. Van Gool. Visual modeling: from images to images, *The Journal of Visualization and Computer Animation*, **13**: 199-209, 2002.
22. M. Pollefeys and L. Van Gool. From Images to 3D Models, *Communications of the ACM*, July 2002/Vol. 45, No. 7, pp.50-55.
23. M. Vergauwen, M. Pollefeys, L. Van Gool. A stereo vision system for support of planetary surface exploration, special issue *Machine Vision and Applications*, Vol. 14(1), 2003, pp.5-14.
24. G. Van Meerbergen, M. Vergauwen, M. Pollefeys, L. Van Gool. A Hierarchical Symmetric Stereo Algorithm Using Dynamic Programming, **International Journal on Computer Vision** 47(1/2/3): 275-285, 2002.
25. R. Koch, M. Pollefeys, L. Van Gool, Realistic surface reconstruction of 3D scenes from uncalibrated image sequences, *Journal of Visualization and Computer Animation*, Vol. 11, pp. 115-127, 2000.
26. M. Pollefeys, R. Koch, M. Vergauwen, L. Van Gool. Automated reconstruction of 3D scenes from sequences of images, *ISPRS Journal Of Photogrammetry And Remote Sensing* (55)4 (2000) pp. 251-267.

27. M. Pollefeys, R. Koch and L. Van Gool. Self-Calibration and Metric Reconstruction in spite of Varying and Unknown Internal Camera Parameters, **International Journal of Computer Vision**, 32(1), 7-25, 1999.
28. M. Pollefeys and L. Van Gool, Stratified Self-Calibration with the Modulus Constraint, **IEEE Transactions on Pattern Analysis and Machine Intelligence**, Vol 21, No.8, pp.707-724, 1999.

Proceedings (refereed)

(57 in top conferences ICCV, CVPR and ECCV, as in most areas of CS those conference are as important as journals)

29. A. Taneja, L. Ballan, M. Pollefeys, "Image Based Detection of Geometric Changes in Urban Environments", **Proc. ICCV'11** (Int. Conf. on Computer Vision).
30. M. Ye, X. Wang, L. Ren, R. Yang, M. Pollefeys, "Accurate 3D Body Pose Estimation From a Single Depth Image", **Proc. ICCV'11** (Int. Conf. on Computer Vision).
31. R. Angst, C. Zach, M. Pollefeys, "The Generalized Trace-Norm and its Application to Structure-from-Motion Problems", **Proc. ICCV'11** (Int. Conf. on Computer Vision).
32. L. Heng, G.H. Lee, F. Fraundorfer, M. Pollefeys, "Real-Time Photo-Realistic 3D Mapping for Micro Aerial Vehicles", IROS11.
33. G.H. Lee, F. Fraundorfer, M. Pollefeys, "RS-SLAM: RANSAC Sampling for Visual FastSLAM", IROS11.
34. C. Häne, C. Zach, J. Lim, A. Ranganathan, M. Pollefeys, "Stereo Depth Map Fusion for Robot Navigation", IROS11.
35. K. Köser, C. Zach, M. Pollefeys, "Dense 3D Reconstruction of Symmetric Scenes from a Single Image", Annual Symposium of the German Association for Pattern Recognition (DAGM) 2011, **best paper award**.
36. B. Zeisl, C. Zach, M. Pollefeys, "Stereo Reconstruction of Building Interiors with a Vertical Structure Prior", Int. Conf. on 3D Data, Imaging, Modeling, Processing, Visualization and Transmission (3DIMPVT). 2011.
37. J. Lim, J.-M. Frahm, M. Pollefeys, "Online Environment Mapping", **Proc. CVPR'11** (IEEE Int. Conf. on Computer Vision and Pattern Recognition).
38. J. Susskind, R. Memisevic, G. Hinton, M. Pollefeys, "Modeling the joint density of two images under a variety of transformations", **Proc. CVPR'11** (IEEE Int. Conf. on Computer Vision and Pattern Recognition).
39. C. Wu, J.-M. Frahm, M. Pollefeys, "Repetition-based Dense Single-View Reconstruction", **Proc. CVPR'11** (IEEE Int. Conf. on Computer Vision and Pattern Recognition).
40. D. Chen, G. Baatz, K. Köser, S. Tsai, R. Vedantham, T. Pylvanainen, K. Roimela, X. Chen, J. Bach, M. Pollefeys, B. Girod, R. Grzeszczuk. "City-Scale Landmark Identification on Mobile Devices", **Proc. CVPR'11** (IEEE Int. Conf. on Computer Vision and Pattern Recognition).
41. A. Schwing, H. Tamir, M. Pollefeys, R. Urtasun, "Distributed Message Passing for Large Scale Graphical Models", **Proc. CVPR'11** (IEEE Int. Conf. on Computer Vision and Pattern Recognition).
42. A. Schwing, C. Zach, Y. Zheng, M. Pollefeys, "Adaptive Random Forest - How many "experts" to ask before making a decision?", **Proc. CVPR'11** (IEEE Int. Conf. on Computer Vision and Pattern Recognition).
43. L. Meier, P. Tanskanen, F. Fraundorfer, M. Pollefeys, "PIXHAWK: A System for Autonomous Flight using Onboard Computer Vision", Proc. IEEE Int. Conf. on Robotics and Automation 2011.

44. L. Heng, L. Meier, P. Tanskanen, F. Fraundorfer, M. Pollefeys, "Autonomous Maneuvering And Obstacle Avoidance on a Vision-Guided MAV Using On-Board Processing", Proc. IEEE Int. Conf. on Robotics and Automation 2011.
45. G. H. Lee, F. Fraundorfer, M. Pollefeys, "MAV Visual SLAM with Plane Constraint", Proc. IEEE Int. Conf. on Robotics and Automation 2011.
46. M. Koch, A. Schwing, D. Comaniciu, M. Pollefeys, "Fully automatic segmentation of wrist bones for arthritis patients", ISBI 2011 (International Symposium on Biomedical Imaging).
47. G.H. Lee, M. Achtelik, F. Fraundorfer, M. Pollefeys, and R. Siegwart, "Benchmarking Tool for MAV Visual Pose Estimation", Int. Conf. on Control, Automation, Robotics and Vision (ICARCV'10), 2010.
48. A. Taneja, L. Ballan, M. Pollefeys, "Modeling dynamic scenes recorded with freely moving cameras", Asian Conf. on Computer Vision 2010.
49. B. Clipp, J. Lim, J.-M. Frahm, M. Pollefeys, "Parallel, Real-Time Visual SLAM", Proc. IROS 2010.
50. D. Gallup, J.-M. Frahm, M. Pollefeys, "3D Reconstruction using an n-Layer Heightmap", Proc. DAGM 2010.
51. R. Angst, M. Pollefeys, 5D Motion Subspaces for Planar Motion, **Proc. ECCV'10** (European Conference on Computer Vision).
52. J.-M. Frahm, P. Georgel, D. Gallup, T. Johnson, R. Raguram, C. Wu, Y.-H. Jen, E. Dunn, B. Clipp, S. Lazebnik, M. Pollefeys, "Building Rome on a Cloudless Day", **Proc. ECCV'10** (European Conference on Computer Vision).
53. C. Wu, J.-M. Frahm, M. Pollefeys, "Detecting Large Repetitive Structures with Salient Boundaries", **Proc. ECCV'10** (European Conference on Computer Vision).
54. F. Fraundorfer, P. Tanskanen, M. Pollefeys, "A minimal case solution to the calibrated relative pose problem for the case of two known orientation angles", **Proc. ECCV'10** (European Conference on Computer Vision).
55. G. Baatz, K. Koser, R. Grzeszczuk, M. Pollefeys, "Handling Urban Location Recognition as a 2D Homothetic Problem", **Proc. ECCV'10** (European Conference on Computer Vision).
56. C. Zach, M. Pollefeys, "Practical Methods For Convex Multi-View Reconstruction", **Proc. ECCV'10** (European Conference on Computer Vision).
57. F. Fraundorfer, C. Wu, M. Pollefeys, "Combining monocular and stereo cues for mobile robot localization using visual words", Proc. of the IEEE Int. Conf. on Pattern Recognition 2010.
58. O. Saurer, F. Fraundorfer, M. Pollefeys, OmniTour: Semi-automatic generation of interactive virtual tours from omnidirectional video Proc. 3DPVT2010 (Int. Conf. on 3D Data Processing, Visualization and Transmission).
59. D. Gallup, J.-M. Frahm, M. Pollefeys, "A Heightmap Model for Efficient 3D Reconstruction from Street-Level Video", Proc. 3DPVT2010 (Int. Conf. on 3D Data Processing, Visualization and Transmission).
60. D. Gallup, J.-M. Frahm, M. Pollefeys, "Piecewise Planar and Non-Planar Stereo for Urban Scene Reconstruction", **Proc. CVPR'10** (IEEE Int. Conf. on Comp. Vision and Pattern Recognition).
61. C. Zach, M. Klopschitz, M. Pollefeys, "Disambiguating Visual Relations Using Loop Constraints", **Proc. CVPR'10** (IEEE Int. Conf. on Comp. Vision and Pattern Recognition).

62. L. Guan, J.S. Franco, E. Boyer, M. Pollefeys, "Probabilistic 3D Occupancy Flow with Latent Silhouette Cues", **Proc. CVPR'10** (IEEE Int. Conf. on Comp. Vision and Pattern Recognition).
63. O. Mac Aodha, G. Brostow, M. Pollefeys, "Segmenting Video into Classes of Algorithm Suitability", **Proc. CVPR'10** (IEEE Int. Conf. on Comp. Vision and Pattern Recognition).
64. F. Fraundorfer, D. Scaramuzza, M. Pollefeys, "A Constricted Bundle Adjustment Parameterization for Relative Scale Estimation in Visual Odometry", ICRA 2010 (Int. Conf. on Robotics and Automation).
65. B. Clipp, C. Zach, J. Lim, J.-M. Frahm, M. Pollefeys, "Adaptive, real-time visual simultaneous localization and mapping", Proc. of IEEE Workshop on Applications of Computer Vision (WACV), 2009.
66. H. Yang, M. Pollefeys, G. Welch, J.-M. Frahm, "3D Motion Segmentation Using Intensity Trajectory", Proc. ACCV'09 (Asian Conf. on Computer Vision).
67. R. Angst, M. Pollefeys, "Static Multi-Camera Factorization Using Rigid Motion", **Proc. ICCV'09** (Int. Conf. on Computer Vision).
68. D. Scaramuzza, F. Fraundorfer, M. Pollefeys, R. Siegwart, "Absolute Scale in Structure from Motion from a Single Vehicle Mounted Camera by Exploiting Nonholonomic Constraints", **Proc. ICCV'09** (Int. Conf. on Computer Vision).
69. B. Clipp, C. Zach, J.-M. Frahm, M. Pollefeys, "A New Minimal Solution to the Relative Pose of a Calibrated Stereo Camera with Small Field of View Overlap", **Proc. ICCV'09** (Int. Conf. on Computer Vision).
70. R. Raguram, J.-M. Frahm, M. Pollefeys, "Exploiting Uncertainty in Random Sample Consensus", **Proc. ICCV'09** (Int. Conf. on Computer Vision).
71. S. J. Kim, G. Doretto, J. Rittscher, P. Tu, N. Krahnstoeber, M. Pollefeys, "A model change detection approach to dynamic scene modeling", Proc. IEEE Conference on Advanced Video and Signal Based Surveillance (AVSS), 2009
72. R. Raguram, J.-M. Frahm, M. Pollefeys, "A Comparative Analysis of RANSAC Techniques Leading to Adaptive Real-Time Random Sample Consensus", **Proc. ECCV'08** (European Conference on Computer Vision).
73. L. Guan, M. Pollefeys, "A Unified Approach to Calibrate a Network of Camcorders and ToF Cameras", IEEE workshop on Multi-camera and Multi-modal Sensor Fusion Algorithms and Applications (M2SFA2), in conjunction with ECCV, 2008.
74. B. Meyer, T. Stich, M. Magnor and M. Pollefeys, "Subframe Temporal Alignment of Non-Stationary Cameras", Proc. BMVC'08 (British Machine Vision Conference).
75. C. Wu, J.-M. Frahm, F. Fraundorfer, M. Pollefeys, "Image Localization in Satellite Imagery with Feature-based Indexing", Proc. of the ISPRS'08 (Int. Soc. of Photogrammetry and Remote Sensing).
76. C. Wu, F. Fraundorfer, J.-M. Frahm and M. Pollefeys, "3D Model Search and Pose Estimation from Single Images using VIP Features", Proc. S3D workshop (in conjunction with CVPR'08).
77. B. Clipp, R. Raguram, J.-M. Frahm, G. Welch, M. Pollefeys, "A Mobile 3D City Reconstruction System", Proc. IEEE VR workshop on Cityscapes.
78. L. Guan, J.-S. Franco, M. Pollefeys, "3D Object Reconstruction with Heterogeneous Sensor Data", Proc. 3DPVT'08 (Int. Symp. on 3D Data Processing, Visualization and Transmission).

79. F. Fraundorfer, J.-M. Frahm, M. Pollefeys, Visual Word based Location Recognition in 3D models using Distance Augmented Weighting, Proc. 3DPVT'08 (Int. Symp. on 3D Data Processing, Visualization and Transmission).
80. C. Wu, B. Clipp, X. Li, J.-M. Frahm, M. Pollefeys, 3D Model Matching with Viewpoint Invariant Patches (VIPs), **Proc. CVPR'08** (IEEE Int. Conf. on Computer Vision and Pattern Recognition).
81. R. K. Kumar, A. Ilie, J.-M. Frahm, M. Pollefeys, Simple calibration of non-overlapping cameras with a mirror, **Proc. CVPR'08** (IEEE Int. Conf. on Computer Vision and Pattern Recognition).
82. D. Gallup, J.-M. Frahm, P. Mordohai, M. Pollefeys, Variable Baseline/Resolution Stereo, **Proc. CVPR'08** (IEEE Int. Conf. on Computer Vision and Pattern Recognition).
83. S.J. Kim, J. Frahm, M. Pollefeys, Radiometric Calibration with Illumination Change for Outdoor Scene Analysis, **Proc. CVPR'08** (IEEE Int. Conf. on Computer Vision and Pattern Recognition).
84. L. Guan, J.-S. Franco, M. Pollefeys, Multi-Object Shape Estimation and Tracking from Silhouette Cues, **Proc. CVPR'08** (IEEE Int. Conf. on Computer Vision and Pattern Recognition).
85. M. Pollefeys, D. Nister, Direct Computation of Sound and Microphone Locations from Time-Difference-of-Arrival data. ICASSP 2008 (IEEE International Conference on Acoustics, Speech and Signal Processing), pp.2445-2448, 2008
86. V. Kwatra, P. Mordohai, S. Kumar Penta, R. Narain, M. Carlson, M. Pollefeys, M. Lin, Fluid in Video: Augmenting Real Video with Simulated Fluids, EuroGraphics'08.
87. B. Clipp, J.-M. Frahm, M. Pollefeys, J.-H. Kim, R. Hartley, Robust 6DOF Motion Estimation for Non-Overlapping Multi-Camera Systems, Proc. WACV'08.
88. J.-H. Kim, R. Hartley, J.-M. Frahm and M. Pollefeys, Visual Odometry for Non-Overlapping Views Using Second-Order Cone Programming, Proc. ACCV'07.
89. P. Merrell, A. Akbarzadeh, L. Wang, P. Mordohai, J.-M. Frahm, R. Yang, D. Nister, M. Pollefeys, Fast Visibility-Based Fusion of Depth Maps, **Proc. ICCV'07** (International Conference on Computer Vision).
90. S.-J. Kim, J.-M. Frahm, M. Pollefeys, Joint Feature Tracking and Radiometric Calibration from Auto-Exposure Video, **Proc. ICCV'07** (International Conference on Computer Vision).
91. S. Sinha, P. Mordohai, M. Pollefeys, Multi-View Stereo via Graph Cuts on the Dual of an Adaptive Tetrahedral Mesh, **Proc. ICCV'07** (International Conference on Computer Vision).
92. S. Larsen, P. Mordohai, M. Pollefeys, H. Fuchs, Temporally Consistent Reconstruction from Multiple Video Streams using Enhanced Belief Propagation, **Proc. ICCV'07** (International Conference on Computer Vision).
93. P. Merrell, P. Mordohai, J.M. Frahm, M. Pollefeys, Evaluation of Large Scale Scene Reconstruction, Proc. VRML'07.
94. B. Clipp, G. Welch, J.-M. Frahm, and M. Pollefeys, Structure From Motion via a Two-Stage Pipeline of Extended Kalman Filters, BMVC 2007.
95. L. Guan, J.-S. Franco, M. Pollefeys, 3D Occlusion Inference from Silhouette Cues, **Proc. CVPR'07** (IEEE Conf. on Computer Vision and Pattern Recognition),
96. H. Yang, M. Pollefeys, G. Welch, J.-M. Frahm, A. Ilie, Differential Camera Tracking through Linearizing the Local Appearance Manifold, **Proc. CVPR'07** (IEEE Conf. on Computer Vision and Pattern Recognition),

97. D. Gallup, J.-M. Frahm, P. Mordohai, Q. Yang, M. Pollefeys, Real-Time Plane-sweeping Stereo with Multiple Sweeping Directions, **Proc. CVPR'07** (IEEE Conf. on Computer Vision and Pattern Recognition),
98. S. J. Kim, D. Gallup, J.-M. Frahm, A. Akbarzadeh, Q. Yang, R. Yang, D. Nistr, M. Pollefeys, Gain Adaptive Real-Time Stereo Streaming, Proc. Int. Conf. on Computer Vision Systems, 2007.
99. J. Yan, M. Pollefeys, "Recovering Articulated Non-rigid Shapes, Motions and Kinematic Chains From Video", AMDO'06 (Conference on Articulated Motion and Deformable Objects), 2006.
100. J.-M. Frahm, M. Pollefeys, "RANSAC for (Quasi-)Degenerate data (QDEGSAC)", **Proc. CVPR'06** (IEEE Conf. on Computer Vision and Pattern Recognition), 2006.
101. J. Yan, M. Pollefeys, "Automatic Kinematic Chain Building from Feature Trajectories of Articulated Objects", **Proc. CVPR'06** (IEEE Conf. on Computer Vision and Pattern Recognition), 2006.
102. A. Akbarzadeh, J.-M. Frahm, P. Mordohai, B. Clipp, C. Engels, D. Gallup, P. Merrell, M. Phelps, S. Sinha, B. Talton, L. Wang, Q. Yang, H. Stewenius, R. Yang, G. Welch, H. Towles, D. Nister and M. Pollefeys, "Towards Urban 3D Reconstruction From Video", Proc. 3DPVT'06 (Int. Symp. on 3D Data, Processing, Visualization and Transmission), 2006.
103. L. Guan, S. Sinha, J.-S. Franco and M. Pollefeys, "Visual Hull Construction in the Presence of Partial Occlusion", Proc. 3DPVT'06 (Int. Symp. on 3D Data, Processing, Visualization and Transmission), 2006.
104. S. Larsen, P. Mordohai, M. Pollefeys and H. Fuchs, "Simplified Belief Propagation for Multiple View Reconstruction", Proc. 3DPVT'06 (Int. Symp. on 3D Data, Processing, Visualization and Transmission), 2006.
105. H. Yang, G. Welch and M. Pollefeys, "Illumination Insensitive Model-Based 3D Object Tracking and Texture Refinement", Proc. 3DPVT'06 (Int. Symp. on 3D Data, Processing, Visualization and Transmission), 2006.
106. J. Yan, M. Pollefeys, "A General Framework for Motion Segmentation: Independent, Articulated, Rigid, Non-rigid, Degenerate and Non-degenerate", **Proc. ECCV'06** (European Conference of Computer Vision).
107. S. Sinha, M. Pollefeys, "Multi-view Reconstruction using Photo-consistency and Exact Silhouette Constraints: A Maximum-Flow Formulation", **Proc. ICCV'05** (International Conf. on Computer Vision), Vol. 1, pp. 349-356, 2005.
108. S. Thirthala, M. Pollefeys, "Multi-view geometry of 1D radial cameras and its application to omnidirectional camera calibration.", **Proc. ICCV'05** (International Conf. on Computer Vision), Vol. 2, pp. 1539-1546, 2005.
109. S. Thirthala and M. Pollefeys, "Trifocal Tensor for Heterogeneous Cameras", Omnivis'05 (in conjunction with ICCV'05).
110. J. Yan and M. Pollefeys, "Articulated Motion Segmentation Using RANSACWith Priors", Workshop on Dynamic Vision (in conjunction with ICCV'05)
111. J. Yan, M. Pollefeys, "A factorization approach to articulated motion recovery", **Proc. CVPR'05** (IEEE Conf. on Computer Vision and Pattern Recognition), Vol. 2, pp. 815-821, 2005.
112. S. Thirthala, M. Pollefeys, "The Radial Trifocal Tensor: A Tool for Calibrating Radial Distortion of Wide-Angle Cameras", **Proc. CVPR'05** (IEEE Conf. on Computer Vision and Pattern Recognition), Vol. 1, pp. 321-328, 2005.
113. J. Repko, M. Pollefeys, "3D Models from Extended Uncalibrated Video Sequences: Addressing Key-frame Selection and Projective Drift", Proc. 3DIM'05, pp. 150-157, 2005.

114. S. Sinha, M. Pollefeys, S.J. Kim, "High-Resolution Multiscale Panoramic Mosaics from Pan-Tilt-Zoom Cameras", Proc.of 4th Indian Conference on Computer Vision, Graphics & Image Processing (ICVGIP 2004), pp. 28-33, 2004.
115. N. Williams, K.-L. Low, C. Hantak, M. Pollefeys, and A. Lastra. "Automatic Image Alignment for 3D Environment Modeling", Proc. of the 17th Brazilian Symposium on Computer Graphics and Image Processing (SIBGRAPI), Curitiba, Brazil, pp. 388-395.
116. S. Sinha, M. Pollefeys. "Visual-Hull Reconstruction from Uncalibrated and Unsynchronized Video Streams", Second International Symposium on 3D Data Processing, Visualization & Transmission, 2004 (invited).
117. J. Yan, M. Pollefeys, "Video Synchronization via Space-Time Interest Point Distribution", Advanced Concepts for Intelligent Vision Systems, 2004, 5 pages.
118. S. Sinha, M. Pollefeys, "Calibrating a network of cameras from live or archived video", Advanced Concepts for Intelligent Vision Systems, 2004, 7 pages.
119. S. Sinha, M. Pollefeys. "Synchronization and Calibration of Camera Networks from Silhouettes", International Conference on Pattern Recognition 2004, Vol. 1, pp. 116-119, 2004.
120. A. Raij, M. Pollefeys. "Auto-Calibration of Multi-Projector Display Walls", International Conference on Pattern Recognition 2004, Vol. 1, pp. 14-17, 2004.
121. R. Yang, M. Pollefeys, and S. Li, "Improved Real-Time Stereo on Commodity Graphics Hardware", Workshop on Real Time 3D Sensors and Their Use 2004 (in conjunction with CVPR), 7 pages.
122. S. Sinha, M. Pollefeys. Camera Network Calibration from Dynamic Silhouettes, **Proc. CVPR'04** (IEEE Conf. on Computer Vision and Pattern Recognition), pp. 195-202, 2004.
123. S.J. Kim, M. Pollefeys. Radiometric Self-Alignment of Image Sequences, **Proc. CVPR'04** (IEEE Conf. on Computer Vision and Pattern Recognition), pp. 645-651, 2004.
124. S. Sinha, M. Pollefeys. "Towards Calibrating a Pan-Tilt-Zoom Cameras Network", OMNIVIS 2004, ECCV Conference Workshop CD-rom proceedings, 2004, 13 pages.
125. M. Pollefeys, S. Sinha. Iso-disparity surfaces for general stereo configurations, T. Pajdla and J. Matas (Eds.), **Computer Vision - ECCV 2004** (European Conference on Computer Vision), LNCS, Vol. 3023, pp. 509-520, Springer-Verlag, 2004.
126. R. Yang, M. Pollefeys, and G. Welch. Dealing with Textureless Regions and Specular Highlight: A Progressive Space Carving Scheme Using a Novel Photo-consistency Measure, **Proc. ICCV'03** (International Conference on Computer Vision), pp. 576-584, 2003.
127. R. Yang and M. Pollefeys. Multi-Resolution Real-Time Stereo on Commodity Graphics Hardware, **Proc. CVPR'03** (IEEE Conf. on Computer Vision and Pattern Recognition), pp. 211-218, 2003.
128. J. Cosmas, T. Itegaki, D. Green, N. Joseph, L. Van Gool, A. Zalesny, D. Vanrintel, F. Leberl, M. Grabner, K. Schindler, K. Karner, M. Gervautz, S. Hynst, M. Waelkens, M. Vergauwen, M. Pollefeys, K. Cornelis, T. Vereenoghe, R. Sablatnig, M. Kampel, P. Axell, E. Meyns, "Providing multimedia tools for recording, reconstruction, visualisation and database storage/access of archaeological excavations", Proceedings 4th international symposium on virtual reality, archaeology and intelligent cultural heritage - VAST2003, pp. 183-192, November 5-7, 2003, Brighton, United Kingdom
129. M. Pollefeys, L. Van Gool, M. Vergauwen, K. Cornelis, F. Verbiest, J. Tops, Video-to-3D, Proc. Photogrammetric Computer Vision 2002 (ISPRS Commission III Symposium), International Archive of Photogrammetry and Remote Sensing. 12 pages.

130. A. Redert, M. Op de Beeck, C. Fehn, W. IJsselsteijn, M. Pollefeys, L. van Gool, E. Ofek, I. Sexton, P. Surman, ATTEST, Advanced Three-dimensional Television System Technologies, Proc. of First International Symposium on 3D Data Processing Visualization and Transmission. 7 pages.
131. M. Pollefeys, F. Verbiest, L. Van Gool, Surviving dominant planes in uncalibrated structure and motion recovery, A. Heyden, G. Sparr, M. Nielsen, P. Johansen (Eds.) **Computer Vision - ECCV 2002**, 7th European Conference on Computer Vision, Lecture Notes in Computer Science, Vol.2351, pp. 837-851.
132. K. Cornelis, M. Pollefeys, L. Van Gool, Lens Distortion Recovery for Accurate Sequential Structure and Motion Recovery A. Heyden, G. Sparr, M. Nielsen, P. Johansen (Eds.) **Computer Vision - ECCV 2002**, 7th European Conference on Computer Vision, Lecture Notes in Computer Science, Vol.2351, pp. 186-200.
133. G. Van Meerbergen, M. Vergauwen, M. Pollefeys, L. Van Gool, A Hierarchical Stereo Algorithm Using Dynamic Programming, Proc. IEEE Workshop on Stereo and Multi-Baseline Vision, pp. 166-174, 2001.
134. M. Pollefeys, L. Van Gool, M. Vergauwen, K. Cornelis, F. Verbiest, J. Tops. Image-based 3D Acquisition of Archaeological Heritage and Applications, Proc. VAST2001 (Virtual Reality, Archaeology, and Cultural Heritage), ACM Press, pp.255-262.
135. M. Pollefeys, L. Van Gool, I. Akkermans, D. De Becker, A Guided Tour to Virtual Sagalassos, Proc. VAST2001 (Virtual Reality, Archaeology, and Cultural Heritage), ACM press, pp.213-218.
136. J. Cosmas, T. Itagaki, D. Green, E. Grabczewski, L. Van Gool, A. Zalesny, D. Vanrintel, F. Leberl, M. Grabner, K. Schindler, K. Karner, M. Gervautz, S. Hynst, M. Waelkens, M. Pollefeys, R. DeGeest, R. Sablatnig, M. Kampel. 3D MURALE: A Multimedia System for Archaeology. Proc. VAST2001 (Virtual Reality, Archaeology, and Cultural Heritage) ACM Press, pp.297-306.
137. K. Cornelis, M. Pollefeys, M. Vergauwen, F. Verbiest, L. Van Gool, Tracking based structure and motion recovery for augmented video productions , Proceedings A.C.M. symposium on virtual reality software and technology - VRST 2001, pp. 17-24, November 14-17, 2001, Banff, Canada
138. M. Pollefeys, L. Van Gool. Do ambiguous reconstructions always give ambiguous images?, **Proc. ICCV'01** (International Conference on Computer Vision), 2001, pp.187-192.
139. M. Pollefeys, M. Vergauwen, F. Verbiest, K. Cornelis, J. Tops and L. Van Gool. Virtual Models from Video and Vice-Versa, keynote presentation, Proc. International Symposium on Virtual and Augmented Architecture (VAA01), B. Fisher, K. Dawson-Howe, C. O'Sullivan (Eds.), Springer-Verlag, 2001, pp.11-22.
140. K. Nuyts, J.P.Kruth, B. Lauwers, M. Pollefeys, L. Qiongyan, J. Schouteden, P. Smars, K. Van Balen, L. Van Gool, M. Vergauwen. Vision on Conservation: VIRTERRF Proc. International Symposium on Virtual and Augmented Architecture (VAA01), B. Fisher, K. Dawson-Howe, C. O'Sullivan (Eds.), Springer-Verlag, 2001, pp.125-132.
141. M. Vergauwen, M. Pollefeys, L. Van Gool. A stereo vision system for support of planetary surface exploration, In B. Schiele, G. Sagerer (Eds.) Computer Vision Systems (Proc. Second International Workshop), LNCS 2095, pp.298-312, 2001.
142. M. Vergauwen, M. Pollefeys, L. Van Gool, Calibration and 3D measurements from Martian Terrain Images, Proceedings of the 2001 IEEE International Conference on Robotics and Automation, pp 2153-2158, Seoul, Korea, IEEE Computer Society Press, 2001.
143. M. Vergauwen, M. Pollefeys, T. Tuytelaars and L. Van Gool, On Satellite Vision-aided Robotics Experiment, Proc. International Conference on Robotics and Automation, pp. 4039-4044, IEEE Computer Society Press, 2000.

144. M. Pollefeys and L. Van Gool, Some issues on self-calibration and critical motion sequences, invited presentation, Proc. Asian Conference on Computer Vision, pp.893-898, 2000.
145. M. Pollefeys, R. Koch, M. Vergauwen and L. Van Gool, Hand-held acquisition of 3D models with a video camera, Proc. 3DIM'99 (Second International Conference on 3-D Digital Imaging and Modeling), IEEE Computer Society Press, pp.14-23, 1999.
146. M. Pollefeys, R. Koch and L. Van Gool, A simple and efficient rectification method for general motion, **Proc. ICCV'99** (International Conference on Computer Vision), pp.496-501, Corfu (Greece), 1999.
147. R. Koch, M. Pollefeys, B. Heigl, L. Van Gool and H. Niemann. Calibration of Hand-held Camera Sequences for Plenoptic Modeling, **Proc. ICCV'99** (International Conference on Computer Vision), pp.585-591, Corfu (Greece), 1999.
148. R. Koch, M. Pollefeys and L. Van Gool, Robust Calibration and 3D Geometric Modeling from Large Collections of Uncalibrated Images, In: W.Foerstner, J.M. Buhmann, A. Faber. P. Faber (Eds.): Mustererkennung 1999. Series Informatik Aktuell, Springer, pp. 413-420, presented at DAGM'99, **joint best paper**.
149. B. Heigl, R. Koch, M. Pollefeys, J. Denzler and L. Van Gool, Plenoptic Modeling and Rendering from Image Sequences taken by Hand-held Camera, Proc. DAGM'99, pp.94-101, **joint best paper**.
150. L. Van Gool, T. Tuytelaars and M. Pollefeys, Adventurous tourism for couch potatoes, invited paper, Proc. CAIP99, LNCS 1689, Springer-Verlag, pp.98-107, 1999.
151. R. Koch, B. Heigl, M. Pollefeys, L. Van Gool and H. Niemann, A Geometric Approach to Lightfield Calibration, Proc. CAIP99, LNCS 1689, Springer-Verlag, pp.596-603, 1999.
152. M. Pollefeys, R. Koch, M. Vergauwen and L. Van Gool, Metric 3D Surface Reconstruction from Uncalibrated Image Sequences, Proc. SMILE Workshop (post-ECCV'98), LNCS 1506, pp.138-153, Springer-Verlag, 1998.
153. R. Koch, M. Pollefeys and L. Van Gool, Automatic 3D Model Acquisition from Uncalibrated Image Sequences, Proceedings Computer Graphics International, pp.597-604, Hannover, 1998.
154. L. Van Gool, F. Defoort, R. Koch, M. Pollefeys, M. Proesmans and M. Vergauwen, 3D modeling for communications, Proceedings Computer Graphics International, pp.482-487, Hannover, 1998.
155. M. Pollefeys, R. Koch, M. Vergauwen and L. Van Gool, Flexible 3D Acquisition with a Monocular Camera, Proceedings IEEE Int'l Conf. on Robotics and Automation'98, Vol.4, pp.2771-2776, Leuven, 1998.
156. R. Koch, M. Pollefeys and L. Van Gool, Multi Viewpoint Stereo from Uncalibrated Video Sequences, **Computer Vision – ECCV'98** (European Conference on Computer Vision), LNCS, Springer-Verlag, Freiburg, 1998.
157. M. Pollefeys, R. Koch and L. Van Gool. Self-Calibration and Metric Reconstruction in spite of Varying and Unknown Internal Camera Parameters, **Proc.ICCV'98** (international Conference on Computer Vision), pp.90-95, Bombay, 1998. joint winner of the David Marr prize (best paper).
158. M. Pollefeys and L. Van Gool. Self-calibration from the Absolute Conic on the Plane at Infinity, Proc.CAIP97, LNCS vol.1296, pp.175-182, Kiel, 1997.
159. M. Pollefeys and L. Van Gool. A stratified approach to metric self-calibration, **Proc. CVPR'97** (Conference on Computer Vision and Pattern Recognition), pp.407-412, Puerto Rico, 1997.

160. M. Pollefeys, L. Van Gool, A. Oosterlinck. The modulus constraint: a new constraint for self-calibration, Proc.ICPR'96 (Int'l Conf. on Pattern Recognition), Vol.1, pp.349-353, Vienna, 1996.
161. M. Pollefeys, L. Van Gool, M. Proesmans. Euclidean 3D reconstruction from image sequences with variable focal lengths, **Computer Vision – ECCV'96** (European Conference on Computer Vision), LNCS Vol.1064, Springer-Verlag, pp.31-42, Cambridge(UK), 1996.
162. M. Pollefeys, L. Van Gool, T. Moons. Euclidean 3D reconstruction from stereo sequences with variable focal lengths, invited presentation, Proc.ACCV'95 (Asian Conference on Computer Vision), Vol.2, pp.6-10, Singapore, 1995.

Book/Proceeding editor

163. S. Kang, I. Essa, M. Pollefeys (Eds.), Proc. of CVPR 2009 (IEEE Int. Conf. on Computer Vision and Pattern Recognition), June 20-25, 2009.
164. A. Koschan, M. Pollefeys, and M. Abidi (Eds.), 3D imaging for Safety and Security , Kluwer/Springer, 2007.
165. K. Daniilidis, M. Pollefeys (Eds.), Proc. of 3DPVT 2006: Third International Symposium on 3D Data Processing, Visualization, and Transmission, June 14-16, 2006, University of North Carolina, Chapel Hill, USA IEEE Computer Society.
166. M. Pollefeys, L. Van Gool, A. Zisserman, A. Fitzgibbon (Eds.), 3D Structure from Images - SMILE 2000, Lecture Notes in Computer Science, Vol. 2188, Springer-Verlag, 2001.

Contributions to books (refereed or invited)

167. M. Pollefeys, J.-M. Frahm, F. Fraundorfer, C. Zach, C. Wu, B. Clipp, D. Gallup, "Towards Large-Scale Visual Mapping and Localization", In Cedric Pradalier, Roland Siegwart, and Gerhard Hirzinger, editors, Robotics Research, volume 70 of Springer Tracts in Advanced Robotics, pages 535-555. Springer Berlin / Heidelberg, 2011.
168. J.-M. Frahm and M. Pollefeys, "Urban 3D Reconstruction", Intelligent Video Surveillance: Systems and Technology, Y. Ma, G. Qian (Eds.), CRC Press, 2009.
169. M. Pollefeys, S. Sinha, L. Guan, J.-S. Franco, "Multiview Calibration Synchronization and Dynamic Scene Reconstruction", Multi-Camera Networks: Principles and Applications, H. Aghajan, A. Cavallaro (Eds.), Elsevier, 2009.
170. M. Pollefeys, S. Sinha, J. Yan, "Calibration and Shape Recovery from Videos of Dynamic Scenes", Computational Vision in Neural and Machine Systems, L. Harris and M. Jenkin (Eds.), Cambridge University Press, 2007.
171. M. Pollefeys, "3D from Image Sequences: Calibration, Motion and Shape Recovery", Mathematical Models of Computer Vision: The Handbook, N. Paragios, Y. Chen, O. Faugeras, Springer, 2006.
172. M. Waelkens, M. Pollefeys, L. Van Gool, "Sagalassos: Reconciling on-going large scale excavations with the natural and human environment", Interpreting the Past (Presenting Archaeological Sites to the Public), D. Callebaut, A. Killebrew, N. Silberman (Eds.), pp.55-75, 2004.
173. A. Heyden and M. Pollefeys, Multi-view Geometry, in Emerging Topics in Computer Vision, G. Medioni and S. B. Kang (Eds.), Prentice-Hall, pp. 45-107, 2004.
174. L. Van Gool, M. Pollefeys, M. Proesmans, A. Zalesny, MURALE : modelling Sagalassos, A.K.Bowman, J.M. Brady (eds.), Images and Artefacts of the Ancient World, (Oxford University Press, British Academy, June 2005).

175. L. Van Gool, M. Pollefeys, M. Proesmans, A. Zalesny. THE MURALE PROJECT: IMAGE-BASED 3D MODELING FOR ARCHAEOLOGY Franco Niccolucci (ed.), Virtual Archaeology Proceedings of the VAST2000 Euroconference held in Arezzo, November 2000. Oxford, Archaeopress, 2002.
176. R. Koch, B. Heigl, and M. Pollefeys, Image-Based Rendering from Uncalibrated Lightfields with Scalable Geometry, In R. Klette, T. Huang, G. Gimel'farb (Eds.), Multi-Image Analysis, Lecture Notes in Computer Science, Vol. 2032, pp.51-66, Springer-Verlag, 2001.
177. M. Pollefeys, S. B. Kang, G. Slabaugh, K. Cornelis, P. Debevec, Panel Session on Visual Scene Representations, In M. Pollefeys, L. Van Gool, A. Zisserman, A. Fitzgibbon (Eds.), 3D Structure from Images - SMILE 2000, Lecture Notes in Computer Science, Vol. 2018, pp.168-176, Springer-Verlag, 2001.
178. K. Cornelis, M. Pollefeys, M. Vergauwen and L. Van Gool, Augmented Reality from Uncalibrated Video Sequences, In M. Pollefeys, L. Van Gool, A. Zisserman, A. Fitzgibbon (Eds.), 3D Structure from Images - SMILE 2000, Lecture Notes in Computer Science, Vol. 2018, pp.144-160, Springer-Verlag, 2001.
179. R. Koch, M. Pollefeys, L. Van Gool, 3D Surface Reconstruction from Uncalibrated Image Sequences, in B. Jahne and H. Haussbecker, "Computer Vision and Applications", Academic Press, pp.622-623, 2000.
180. M. Pollefeys, M. Proesmans, R. Koch, M. Vergauwen and L. Van Gool, Detailed model acquisition for virtual reality, in J. Barcelo, M. Forte and D. Sanders, "Virtual Reality in Archaeology", ArcheoPress (BAR International Series S 843) ISBN 1-84171-047-4, Oxford, pp.71-77, 2000.
181. M. Pollefeys, L. Van Gool, A. Oosterlinck. Euclidean self-calibration via the modulus constraint, in F.Dillen, L.Vrancken, L.Verstraelen, and I. Van de Woestijne, "Geometry and topology of submanifolds, VIII" World Scientific, Singapore, New Jersey, London, Hong Kong, pp.283-291, 1997.
182. M. Pollefeys, L. Van Gool, T. Moons. Euclidean 3D reconstruction from stereo sequences with variable focal lengths, Recent Developments in Computer Vision, LNCS Vol.1035, pp.405-414, Springer-Verlag, 1996.
183. T. Moons, L. Van Gool, and M. Pollefeys. 1996. Geometrical structure from perspective image pairs, in F.Dillen, L.Vrancken, L.Verstraelen, and I. Van de Woestijne, "Geometry and topology of submanifolds, VII" World Scientific, Singapore, New Jersey, London, Hong Kong, pp.305-308

Thesis

184. M. Pollefeys, Self-calibration and metric 3D reconstruction from uncalibrated image sequences, Ph.D. Thesis, ESAT-PSI, K.U.Leuven, 1999, Scientific Prize BARCO 1999.
185. M. Pollefeys, Algorithms for Radial Basis Function Neural Networks, Master Thesis, ESAT, K.U.Leuven, 1994.

Magazine

186. M. Pollefeys and L. Van Gool. Virtualising the 3D Real World: Automatic Method for the Acquisition of Detailed 3D Models from Image Sequences, GIM International (The Worldwide Magazine of Geomatics), Volume 14, Number 4, April 2000, pp. 12-15.

Proceedings (non-refereed)

187. J.-M. Frahm, M. Pollefeys, B. Clipp, D. Gallup, R. Raguram, C. Wu and C. Zach, "3D Reconstruction of architectural scenes from uncalibrated video sequences", In Proceedings of ISPRS workshop 3D-ARCH 2009 (invited).

188. M. Pollefeys, L. Van Gool, M. Vergauwen, K. Cornelis, F. Verbiest, J. Tops, Proc. of the ISPRS workshop on Vision Techniques for Digital Architectural and Archaeological Archives, July 1-3 2003, Ancona, Italy, 3D Capture of Archaeology and Architecture with a Hand-Held Camera, The International Archive of the Photogrammetry, Remote Sensing and Spatial Information Sciences, Vol. XXXIV, Part 5/W12, pp. 262–267, 2003.
189. M. Pollefeys, M. Vergauwen, F. Verbiest, J. Tops, L. Van Gool, Obtaining 3D models with a hand-held camera, East-West Vision 2002, F. Leberl and A. Ferko (Eds.), p.127-136.
190. M. Pollefeys, L. Van Gool, M. Vergauwen, K. Cornelis, F. Verbiest, J. Tops, From video to 3D: an automatic processing pipeline, Proc. ISPRS Commission V Symposium 2002, International Archive of Photogrammetry and Remote Sensing, 6 pages.
191. C. Fehn, P. Kauff, M. Op de Beeck, F. Ernst, W. IJsselsteijn, M. Pollefeys, L. Van Gool, E. Ofek and I. Sexton, "An Evolutionary and Optimised Approach on 3D-TV", In Proc. IBC '02, pages 357-365, Amsterdam, Netherlands, September 2002.
192. M. op de Beeck, P. Wilinski, C. Fehn, P. Kauff, W. IJsselsteijn, M. Pollefeys, L. Van Gool, E. Ofek and I. Sexton, "Towards an Optimized 3D Broadcast Chain", In Proc. SPIE ITCOM '02, Boston, MA, USA, July - August 2002, pages 9.
193. M. Pollefeys and L. Van Gool From Images to Virtual Models and Vice-Versa, Proc. IMAGINA, pp.235-246, 2002.
194. M. Pollefeys, M. Vergauwen, K. Cornelis, L. Van Gool, 3D Acquisition of Archaeological Heritage from Images, Proc. XVIII International Symposium of CIPA, ISPRS International Archive of Photogrammetry, Remote Sensing and Spatial Information Sciences Vol. XXXIV-5/C7 / CIPA International Archive for Documentation of Cultural Heritage Vol. XVIII-2001, pp. 381–388, 2001.
195. J. Schouteden, M. Pollefeys, M. Vergauwen, L. Van Gool, Image-based 3D acquisition tool for architectural conservation, Proc. XVIII International Symposium of CIPA, ISPRS International Archive of Photogrammetry, Remote Sensing and Spatial Information Sciences Vol. XXXIV-5/C7 / CIPA International Archive for Documentation of Cultural Heritage Vol. XVIII-2001, pp. 301–305, 2001.
196. M. Pollefeys, M. Vergauwen, K. Cornelis, J. Tops, F. Verbiest, L. Van Gool. Structure and motion from image sequences, Proc. Conference on Optical 3-D Measurement Techniques V, Grün, Kahmen (Eds.), Vienna, October, 2001, pp. 251-258.
197. M. Vergauwen, M. Pollefeys and L. Van Gool, A stereo vision system for planetary surface exploration, Proc. Conference on Optical 3-D Measurement Techniques V, Grün, Kahmen (Eds.), Vienna, October, 2001, pp. 192-199.
198. K. Nuyts, J.-P. Kruth, B. Lauwers, H. Neuckermans, M. Pollefeys, L. Qiongyan, J. Schouteden, P. Smars, K. Van Balen, L. Van Gool, and M. Vergauwen. From a conservationist's point of view, Proc. Conference on Optical 3-D Measurement Techniques V, Grün, Kahmen (Eds.), Vienna, October, 2001, pp. 179-186.
199. M. Vergauwen, M. Pollefeys, R. Moreas, F. Xu, G. Visentin, L. Van Gool and H. Van Brussel. Calibration, Terrain Reconstruction and Path Planning for a Planetary Exploration System, Proc. i-SAIRAS 2001, 8 pages.
200. M. Pollefeys, M. Vergauwen, F. Verbiest, K. Cornelis, L. Van Gool, From image sequences to 3D models, Proc. Automatic Extraction of Man-Made Objects From Aerial and Space Images (III), E. Baltsavias, A. Gruen, L. Van Gool (Eds.) Balkema Publishers, pp.403-410, 2001.
201. B. Fontaine, D. Termont, L. Steinicke, M. Pollefeys, M. Vergauwen, R. Moreas, F. Xu, K. Landzettel, M. Steinmetz, B. Brunner, H. Michaelis, T. Behnke, R. Dequeker, P. Degezelle, R. Bertrand, G. Visentin, Autonomous Operations of a Micro-Rover for Geo-Science on Mars, Proc. 6th ESA workshop on Advanced Space Technologies for Robotics and Automation (ASTRA 2000), paper 3.6-3, 2000.

202. M. Vergauwen, M. Pollefeys, L. Van Gool, Autonomous Operations of a Micro-Rover for Geo-Science on Mars, Proc. 6th ESA workshop on Advanced Space Technologies for Robotics and Automation (ASTRA 2000), paper 3.7-1, 2000.
203. M. Leeman, R. Lauwereins, M. Pollefeys, Implementation of a robust 3D reconstruction algorithm on a TMS320C67x: Memory optimisations for the Harris Corner Detector, Proceedings Third European DSP Education and Research Conference, 2000.
204. M. Pollefeys, M. Vergauwen, L. Van Gool, Automatic 3D modeling from image sequences, invited presentation, International Archive of Photogrammetry and Remote Sensing, Vol. XXXIII, Part B5, pp. 619-626, 2000.
205. M. Pollefeys, R. Koch, M. Vergauwen, B. Deknuydt, L. Van Gool Three-dimensional scene reconstruction from images, proceedings SPIE Electronic Imaging, Three-Dimensional Image Capture and Applications III, SPIE Proceedings series Vol. 3958, pp.215-226, 2000.
206. L. Van Gool, F. Defoort, J. Hug, G. Kalberer, R. Koch, D. Martens, M. Pollefeys, M. Proesmans, M. Vergauwen, A. Zalesny, Image-based 3D modeling : modeling from reality , Proceedings NATO advanced research workshop on confluence of computer vision and computer graphics, NATO science series - 3. high technology, vol. 84, pp.161-178, August 29-31, 1999, Ljubljana, Slovenia, Leonardi A., Solina F. and Bajcsy R., eds., Kluwer Academic Publishers, 2000.
207. R. Koch, M. Pollefeys and L. Van Gool. Realistic 3D Scene Modeling from Uncalibrated Image Sequences, invited presentation International Conference for Image Processing, special session on Image Analysis and Synthesis, 1999, 5 pages.
208. M. Pollefeys, R. Koch, M. Vergauwen and L. Van Gool, An Automatic Method for Acquiring 3D Models from Photographs: applications to an Archaeological Site, ISPRS International Workshop on Photogrammetric Measurement, Object Modeling and Documentation in Architecture and Industry, Thessaloniki, International Archive of Photogrammetry and Remote Sensing, Vol. XXXII, Part 5W11, pp.76-80, 1999.
209. M. Pollefeys, R. Koch, M. Vergauwen and L. Van Gool, Automatic Generation of 3D Models from Photographs, Proceedings Virtual Systems and MultiMedia (VSMM'98), 1998, 6 pages.
210. M. Pollefeys, R. Koch, M. Vergauwen and L. Van Gool, Virtualizing Archaeological Sites, Proceedings Virtual Systems and MultiMedia (VSMM'98). pp. 600-605, 1998.
211. M. Pollefeys, R. Koch, M. Vergauwen and L. Van Gool, Flexible acquisition of 3D structure from motion, Proceedings IEEE workshop on Image and Multidimensional Digital Signal Processing'98, pp.195-198, Alpbach, 1998.

Abstracts

212. M. Pollefeys, M. Proesmans, R. Koch, M. Vergauwen and L. Van Gool. Flexible 3D reconstruction techniques with applications in archeology, 26th. Int'l Conf. on Computer Applications in Archeology, Barcelona, 1998.
213. T. Tuytelaars. M. Vergauwen, M. Pollefeys and L. Van Gool, Image Matching for Wide baseline Stereo, Proc. International Conference on Forensic Human Identification, October 1999.
214. M. Pollefeys, Van Beeld tot VR, Invited Talk, Symposium Virtual Reality, 36e Nederlands Mathematisch Congres, Maastricht, Nederland, 28 april 2000.

Technical Report

215. M. Vergauwen, M. Pollefeys, L. Van Gool, Calibration and 3D Measurement from Martian Terrain Images, Technical Report Nr. KUL/ESAT/PSI/0005, PSI-ESAT, K.U.Leuven. Belgium, 2000.

216. K. Cornelis, M. Pollefeys, M. Vergauwen, L. Van Gool, Augmented Reality using Uncalibrated Video Sequences, Technical Report Nr. KUL/ESAT/PSI/0002, PSI-ESAT, K.U.Leuven. Belgium, 2000.
217. M. Pollefeys and L. Van Gool. Some Geometric Insight in Self-Calibration and Critical Motion Sequences, Technical Report Nr. KUL/ESAT/PSI/0001, PSI-ESAT, K.U.Leuven, Belgium, 2000.
218. M. Pollefeys, R. Koch and L. Van Gool. Self-Calibration and Metric Reconstruction in spite of Varying and Unknown Internal Camera Parameters, Technical Report Nr. KUL/ESAT/MI2/9707, MI2-ESAT, K.U.Leuven, Belgium, 1997.
219. M. Pollefeys and L. Van Gool. A stratified approach to metric self-calibration, Technical Report Nr.KUL/ESAT/MI2/9702, MI2-ESAT, K.U.Leuven, Belgium, 1997.
220. M. Pollefeys, L. Van Gool and A. Oosterlinck. Self-calibration with the modulus constraint , Technical Report Nr. KUL/ESAT/MI2/9609, MI2-ESAT, K.U.Leuven, Belgium, 1996.
221. M. Pollefeys, L. Van Gool, M. Proesmans. Euclidean 3D reconstruction from image sequences with variable focal lengths, Technical Report Nr. KUL/ESAT/MI2/9508, MI2-ESAT, K.U.Leuven, Belgium, 1995.

Video proceedings

222. J. Yan, M. Pollefeys, Automatic Kinematic Chain Building from Feature Trajectories of Articulated Objects, CVPR'06 video proceedings.
223. S. Sinha, M. Pollefeys, Synchronization and Calibration of a Camera Network for 3D Event Reconstruction from Live Video, CVPR'05 video proceedings, p. 1196.
224. S. Thirthala, S. Sinha, M. Pollefeys, Calibration of Pan-Tilt-Zoom (PTZ) Cameras and Omni-Directional Cameras, CVPR'05 video proceedings, p. 1198.
225. J. Yan, M. Pollefeys, A Factorization-Based Approach to Articulated Motion Recovery, CVPR'05 video proceedings, p. 1203.

Course notes/On-line tutorial

226. M. Pollefeys, "Obtaining 3D Models with a Hand-Held Camera" or "3D Modeling from Images", Course/Tutorial notes, presented at Siggraph 2002/2001/2000, 3DIM 2001/2003, ECCV 2000. Also available on-line at <http://www.cs.unc.edu/~marc/tutorial/>