

# Curriculum Vitae

## Dr. Adrien Bartoli

(last update: February 2008)  
Note: Most abbreviations used in this document  
are explained at its very end

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## Personal Details

Born on the 9th of April 1977, in Grenoble, France. French citizen. Single, two children.

## Awards

The 2004 PhD thesis prize of INPG (Institut National Polytechnique de Grenoble), France.  
Best paper award at CORESA'07, Montpellier, France.

## Education

- 2003 **PhD in Computer Vision**  
INPG (Institut National Polytechnique de Grenoble), France
- 2000 **MSc in Computer Vision, Image Synthesis and Robotics**  
INPG (Institut National Polytechnique de Grenoble), France. Ranked first
- 2000 **'Magistère' in Computer Science** (fifth year degree of excellence)  
UJF (Université Joseph Fourier), Grenoble, France. Ranked first
- 1998 **Bachelor in Computer Science** (third year degree)  
UJF (Université Joseph Fourier), Grenoble, France. Ranked first

## Work Experience

- 2004/today **Research Scientist at CNRS** (Centre National de la Recherche Scientifique)  
LASMEA laboratory (CNRS / UBP), Clermont-Ferrand, France. Ranked first
- 2006/2009 **Visiting Professor at DIKU** (Department of Computer Science)  
University of Copenhagen, Denmark.
- 2003/2004 **Postdoctoral Researcher**, University of Oxford, UK, RRG laboratory  
Visual Geometry Group. Supervisor: Prof. Andrew Zisserman
- 2000/2003 **Doctoral Student**, INRIA, the Perception team (ex MOVI), GRAVIR laboratory  
Supervisors: Prof. Peter Sturm and Prof. Radu Horaud  
Thesis: *Reconstruction and alignment in 3D vision: points, lines, planes and cameras*
- Summer 2000 **Internship**, University of Oxford, UK, RRG laboratory  
Visual Geometry Group. Supervisor: Prof. Andrew Zisserman
- 1999/2003 **Teaching Assistant in Computer Science**  
UJF (Université Joseph Fourier), Grenoble, France

## Main Responsibilities

- 2006/today **Co-head of the ComSee research team** (Computers that See)  
GRAVIR group, LASMEA laboratory

## Professional Activities

### Invited Presentations in Conferences and Workshops (4)

- **Journée “Modélisation 3D” du GdR ISIS** – Paris, France, Nov. '06  
Title: *Modeling and Reconstructing Nonrigid Environments with Specific and Generic Models*
- **Journée “Suivi visuel robuste en temps-réel” du GdR ISIS** – Paris, France, Nov. '06  
Title: *Feature-Driven Direct Non-Rigid Image Registration*
- **Topics in Automatic 3D Modeling and Processing Workshop** – Verona, Italy, Mar. '06  
Title: *Direct Image Registration With Gain and Bias*
- **IAAC'04 - AARG Int'l Aerial Archaeology Conference**, Munich, Germany, Sep. '04  
Title: *New Solutions to an Old Problem - Multiple Image Registration With Sparse Ground Control Data* (with Rog Palmer and Irwin Scollar)

### Invited Seminars and Reading Groups in Laboratories (22)

- **Institut de Recherche en Informatique de Toulouse – IRIT**, France, Nov. '07  
Title: *Deformable Image Registration and Generic Surface Reconstruction*
- **Australian National University, Canberra**, Aug. '07  
Title: *Parametric Methods for Registering Images of a Deforming Surface*
- **Department of Computer Science – DIKU, Univ. of Copenhagen**, Denmark, May '07  
Title: *Feature-Driven Direct Non-Rigid Image Registration*
- **LAIC (Laboratoire d'Algorithmique et Image de Clermont)**, France, Feb. '07  
Title: *Modeling and Reconstructing Paper From Multiple Images*
- **Chair for Computer Aided Medical Procedures, Tec. Univ. Munich**, Germany, Feb. '07  
Title: *Feature-Driven Direct Non-Rigid Image Registration*
- **Ecole Polytechnique Fédérale de Lausanne – EPFL**, Suisse, Dec. '06  
Title: *Vision in Deformable Environments : Two Case Studies*
- **Institut de Recherche en Informatique de Toulouse – IRIT**, France, Jul. '06  
Title: *Groupwise Geometric and Photometric Direct Image Registration*
- **Department of Computer Science – DIKU, Univ. of Copenhagen**, Denmark, Feb. '06  
Title: *Image Registration by Combining Thin-Plate Splines With a 3D Morphable Model*
- **Faculty of Engineering – LTH, University of Lund**, Sweden, Feb. '06  
Title: *Non-Rigid Alignments For Tracking and Augmenting Deformable Surfaces*
- **Informatics and Mathematical Modeling, Technical University of Denmark**, Feb. '06  
Title: *Non-Rigid Alignments For Tracking and Augmenting Deformable Surfaces*
- **Division of Mathematics, Malmoe University**, Sweden, Feb. '06  
Title: *Image Registration by Combining Thin-Plate Splines With a 3D Morphable Model*
- **Chair for Computer Aided Medical Procedures, Tec. Univ. Munich**, Germany, Jan. '06  
Title: *Image Registration by Combining Thin-Plate Splines With a 3D Morphable Model*
- **Humboldt University**, Berlin, Germany, Nov. '05  
Title: *Towards Non-Rigid Structure-From-Motion*
- **INRIA Rhône-Alpes**, Grenoble, France, Sep. '05  
Title: *Non-Rigid Alignments For Tracking and Augmenting Deformable Surfaces*
- **Chair for Computer Aided Medical Procedures, Tech. Univ. Munich**, Germany, Jul. '05  
Title: *Non-Rigid Alignments For Tracking and Augmenting Deformable Surfaces*
- **Department of Mathematics**, Clermont-Ferrand, France, Apr. '05  
Title: *La géométrie projective en vision 3D non calibrée*
- **LASMEA**, Clermont-Ferrand, France, Nov. '04  
Title: *Estimation directe d'alignements non-rigides*
- **INRIA Rhône-Alpes**, Grenoble, France, Apr. '04  
Title: *Estimation directe d'alignements non-rigides*

- **INRIA Rhône-Alpes**, Grenoble, France, Jan. '04  
*Title: Augmentation de séquences d'images de scènes non-rigides*
- **LASMEA**, Clermont-Ferrand, France, Jan. '04  
*Title: Augmentation de séquences d'images de scènes non-rigides*
- **University of Oxford**, UK, Dec. '03  
*Topic: Radial Basis Functions*
- **LASMEA**, Clermont-Ferrand, France, Nov. '02  
*Title: Paramétrisation pour la reconstruction 3D : points, droites, plans et caméras*

## Visits

- **University of Copenhagen – DIKU**, Denmark  
Regular visits since March '06, approximately 4 days every two months (40 days so far)
- **Institut de Recherche en Informatique de Toulouse – IRTIT**, France  
Jul. '06 (7 days), Nov. '07 (4 days)
- **Faculty of Engineering – LTH, University of Lund**, Sweden  
Feb. '06 (7 days)
- **Chair for Computer Aided Medical Procedures, Technical Univ. Munich**, Germany  
Jul. '05 (3 days), Jan. '06 (3 days), Feb. '07 (3 days)
- **Australian National University, Canberra**  
Aug. '07 (7 days)
- **Ecole Polytechnique Fédérale de Lausanne**, Suisse  
Dec. '06 (3 days)
- **Vision, Image Processing and Sound – VIPS, University of Verona**, Italy  
Mar. '06 (7 days), Apr. '08 (7 days), May '08 (7 days)

## Editorial Activity

### Chairing

- I am Publications Chair for the **2008 3DPVT Conference** (3D Data Processing, Visualization and Transmission), Georgia Institute of Technology, Atlanta, GA, USA  
Website: [www.cc.gatech.edu/conferences/3DPVT08](http://www.cc.gatech.edu/conferences/3DPVT08)
- **NORDIA 2008** – Workshop on Nonrigid Shape Analysis and Deformable Image Analysis, Anchorage, Alaska. In conjunction with CVPR 2008.  
General co-chairs: Vincent Lepetit, Alexander Bronstein, Michael Bronstein, Adrien Bartoli, Ron Kimmel and Nassir Navab  
Website: [tosca.cs.technion.ac.il/nordia08](http://tosca.cs.technion.ac.il/nordia08)
- **Tutorial at ISMAR 2007** Computer Vision for AR: Rigid and Deformable Tracking Using Markers or Scene Features  
Organizers: Selim Ben Himane, Vincent Lepetit and Adrien Bartoli  
Website: [campar.in.tum.de/ISMAR07TT](http://campar.in.tum.de/ISMAR07TT)
- **DEFORM 2006** – Workshop on Image Registration in Deformable Environments, Edinburgh, UK. Held in conjunction with BMVC 2006.  
General co-chairs: Adrien Bartoli, Nassir Navab and Vincent Lepetit.  
Website: [comsee.univ-bpclermont.fr/events/DEFORM06](http://comsee.univ-bpclermont.fr/events/DEFORM06)
- **ORASIS 2005** – « Congrès des jeunes chercheurs en Vision par Ordinateur », Fournol, France.  
General co-chairs: Thierry Chateau and Adrien Bartoli.  
Website: [comsee.univ-bpclermont.fr/events/ORASIS05](http://comsee.univ-bpclermont.fr/events/ORASIS05)

## Reviewing

- Journals (reviewer)

PAMI	IEEE Transactions on Pattern Analysis and Machine Intelligence
TASE	IEEE Transactions on Automation Science and Engineering
TRO	IEEE Transactions on Robotics
TIP	IEEE Transactions on Image Processing
CVIU	Computer Vision and Image Understanding
JMIV	Journal of Mathematical Imaging and Vision
IVC	Image and Vision Computing
	The Annals of Statistics
CGForum	Computer Graphics Forum, Eurographics
PRL	Pattern Recognition Letters
	IEE Proceedings - Vision, Image and Signal Processing
ETRI Journal	Electronics and Telecommunications Research Institute, South Korea
JEI	Journal of Electronic Imaging (SPIE and IS&T)
DKE	Data and Knowledge Engineering
IJCA	International Journal of Computers and Applications
JIAS	Journal of Image Analysis and Stereology
TS	Traitement du Signal

- Conferences (member of Programme Committee)

VIIP 2008	Int'l Conf. on Visualization, Imaging and Image Processing, Spain
ICIP 2008	IEEE Int'l Conf. on Image Processing, San Diego, USA
BMVC 2008	British Machine Vision Conference, Leeds, UK
TWPJJ 2008	Tribute Workshop to Peter Johansen, Copenhagen, Denmark
ECCV 2008	European Conf. on Computer Vision, Marseille, France
CVPR 2008	IEEE Int'l Conf. on Computer Vision and Pattern Recognition, Alaska
AMDO 2008	Int'l Conf. on Articulated Motion and Deformable Objects, Andratx, Spain
VISAPP 2008	Int'l Conf. on Computer Vision Theory and Applications, Madeira, Portugal
ICCV 2007	IEEE Int'l Conf. on Computer Vision, Rio de Janeiro, Brazil
CORESA 2007	Compression et Représentation des Signaux Audiovisuels, Montpellier, France
3DIM 2007	Int'l Conf. on 3-D Digital Imaging and Modeling, Montréal, Canada
ICIP 2007	IEEE Int'l Conf. on Image Processing, San Antonio, USA
ORASIS 2007	Congrès des jeunes chercheurs en Vision par Ordinateur, Obernai, France
BMVC 2007	British Machine Vision Conference, Warwick, UK
SCIA 2007	Scandinavian Conference on Image Analysis, Aalborg, Denmark
CVPR 2007	IEEE Int'l Conf. on Computer Vision and Pattern Recognition, USA
BMVC 2006	British Machine Vision Conference, Edinburgh, UK
ICIP 2006	IEEE Int'l Conf. on Image Processing, Atlanta, USA

- Conferences (reviewer)

MICCAI 2008	Int'l Conf. on Medical Image Computing and Computer Assisted Intervention
ICRA 2008	IEEE Int'l Conf. on Robotics and Automation, Pasadena, USA
ISMAR 2007	IEEE and ACM Int'l Symposium on Mixed and Augmented Reality, Japan
MICCAI 2007	Int'l Conf. on Medical Image Computing and Computer Assisted Intervention
ISMAR 2006	IEEE and ACM Int'l Symposium on Mixed and Augmented Reality, USA
CVPR 2006	IEEE Int'l Conf. on Computer Vision and Pattern Recognition, New York, USA
ECCV 2006	European Conf. on Computer Vision, Graz, Austria
ICRA 2005	IEEE Int'l Conf. on Robotics and Automation, Barcelona, Spain
CVPR 2005	IEEE Int'l Conf. on Computer Vision and Pattern Recognition, San Diego, USA
CVPR 2004	IEEE Int'l Conf. on Computer Vision and Pattern Recognition, Washington, USA
ICCV 2003	IEEE Int'l Conf. on Computer Vision, Nice, France

CVPR 2003	IEEE Int'l Conf. on Computer Vision and Pattern Recognition, Madison, USA
ECCV 2002	European Conf. on Computer Vision, Copenhagen, Denmark
CVPR 2001	IEEE Int'l Conf. on Computer Vision and Pattern Recognition, Hawaii, USA

- Workshops (member of Programme Committee)

AMI-ARCS 2008	International Workshop on Augmented Environments for Medical Imaging and Computer-aided Surgery, held at MICCAI 2008, New York, USA
WDV 2007	Workshop on Dynamical Vision, held at ICCV 2007, Rio de Janeiro, Brazil
AMI-ARCS 2006	International Workshop on Augmented Environments for Medical Imaging and Computer-aided Surgery, held at MICCAI 2006, Copenhagen, Denmark
WDV 2006	Workshop on Dynamical Vision, held at ECCV 2006, Graz, Austria

## Visitors

- **Richard Hartley** – Jun. '08  
Professor, University of Canberra, Australia
- **Pierre Gurdjos** – Jul. '07 (1 week)  
Research Engineer, IRIT, Toulouse, France  
Topic: *Camera Self-Calibration*
- **Umberto Castellani** – Jan. and Mar. '07  
Research Scientist, University of Verona, Italy  
Topic: *Iterative Closest Point in a Non-Rigid Environment*
- **Cristian Grava** – Aug. and Sep. '06  
Lecturer, University of Oradea, Romania  
Topic: *Non-Rigid Image Motion Estimation*
- **Søren Olsen** – Jan. and Feb. '05  
Professor, University of Copenhagen, Denmark  
Topic: *Implicit Non-Rigid Structure-from-Motion Using Closure Constraints*

## Students and Postdocs

- **Member of PhD Committees**

- **Referree for Julien Pilet's PhD** – Sep. '08  
EPFL, Lausanne, Suisse
- **Referee for Julien Peyras's PhD** – Oct. '07  
University of Milan, Italy

- **Postdocs**

- **Michela Farenzena** – Oct. 2007 → today  
**Collaboration with CEA and cosupervision with Youcef Mezouar (LASMEA)**  
Topic: *Vision-based Outdoor Localization*

- **PhD Students**

- **Pauline Julian** – Sep. 2007 → today  
PhD Student at UPS (Université Paul Sabatier), Toulouse, France  
Topic: *Variational Methods for Segmentation and Inpainting*  
Cosupervised by François Lauze, Vincent Charvillat, Ariel Choukroun *et al.*
- **Samir Khoualed** – Sep. 2007 → today  
*Winner with Dawei Liu of the third prize at 'Doctoriales' 2008 Clermont-Ferrand*

- PhD Student at UBP (Université Blaise Pascal), Clermont-Ferrand, France
  - Topic: *Deformable Surface Reconstruction using Generative Models*
- **Dawei Liu** – Sep. 2007 → today
  - PhD Student at UBP (Université Blaise Pascal), Clermont-Ferrand, France
  - Topic: *Learning-Based Deformable Reconstruction*
  - Cosupervised by me and Prof. M. Dhome
- **Florent Brunet** – Sep. 2007 → today
  - PhD Student at UdA (Université d’Auvergne) and TUM (Technische Universität München, Allemagne)
  - Topic: *Dense Reconstruction of Deformable Surface*
  - Cosupervised by me, Prof. Nassir Navab and Prof. Rémy Malgouyres
- **Julien Michot** – Sep. 2007 → today
  - PhD Student at UBP (Université Blaise Pascal), Clermont-Ferrand, France
  - Topic: *Embedded Camera Self-Calibration*
  - Julien works at CEA Saclay. He is cosupervised by François Gaspard / CEA, me and Prof. J.-M. Lavest
- **Mathieu Perriollat** – Sep. 2005 → today
  - PhD Student at UBP (Université Blaise Pascal), Clermont-Ferrand, France
  - Topic: *Modeling and Reconstructing Paper Sheets*
  - Cosupervised by me (95 %) and Prof. J.-M. Lavest (5 %)
- **Vincent Gay-Bellile** – Sep. 2005 → today
  - PhD Student at UBP (Université Blaise Pascal), Clermont-Ferrand, France
  - Topic: *Deformable Surface Tracking and 3D Reconstruction*
  - Cosupervised by me (70 %), P. Sayd / CEA (25 %) and Prof. J.-T. Lapresté (5 %)
- **Hanna Martinsson** – Oct. 2004 → today
  - PhD Student at UBP (Université Blaise Pascal), Clermont-Ferrand, France
  - Topic: *3D Reconstruction of Manufactured Objects for Quality Control*
  - Hanna works at CEA Saclay. She is cosupervised by François Gaspard / CEA (55 %), me (40 %) and Prof. J.-M. Lavest (5 %)

- **PhD Students coming for Internships**

- **Pierluigi Taddei** – Oct. 2007 → Apr. 2008
  - PhD Student at the University of Milan, Italy
  - Topic: *Monocular Paper Reconstruction in a Variational Framework*
- **Toby Collins** – Mar. and Apr. 2007
  - PhD Student at the University of Edinburgh, UK
  - Supervised by Prof. Bob Fisher
  - Topic: *3D Registration of a Deformable Surface Under Strong Self-Occlusions*
- **Julien Peyras** – Nov. 2006 and Apr. 2007
  - PhD Student at the University of Milan, Italy
  - Topic: *Light-Invariant and Person-Independent Active Appearance Models*
- **Benoît Bocquillon** – Oct. 2006
  - PhD Student at the University of Toulouse, France
  - Supervised by Dr. Pierre Gurdjos and Dr. Alain Crouzil
  - Topic: *Feature Matching Using Interval Analysis*
- **Daniel Pizarro** – Sep. 2006 → Feb. 2007
  - PhD Student at the University of Alcalá, Spain
  - Supervised by Prof. Manuel Mazo Quintas
  - Topic: *Image Registration in spite of Moving Shadows*
- **Andreas Hofhauser** – Jun. 2006
  - PhD Student at Technical University of Munich, Germany

Supervised by Prof. Nassir Navab

Topic: *Learning Deformable Object Models From Simulated Data*

- **Jean-Philippe Tardif** – May and Oct. 2006

PhD Student at University of Montréal, Canada

Supervised by Prof. Sébastien Roy

Topic: *Matrix Factorization in the Presence of Missing and Erroneous Data*

- **Sylvie Chambon** – Mar. 2006

Assistant Professor at UPS (Université Paul Sabatier), Toulouse, France

Topic: *Thin-Plate Surface Reconstruction From Multiple Images*

## • Master Students

- **Ludovic Magerand** – Feb. 2008 → Jul. 2008

**Cosupervisor: Omar Ait-Aider (LASMEA)**

Master student at UBP, Clermont-Ferrand, France

Topic: *A Piecewise Affine Projection Model*

- **Emilien Gaignette** – Apr. 2008 → Sep. 2008

**Cosupervisor: Søren Olsen (DIKU, Copenhagen, Denmark)**

Master students at UBP / ISIMA, Clermont-Ferrand, France

Topic: *Tracking-by-Detection for Smooth Deforming Surfaces*

- **Nikolas Tiilikainen** – Sep. 2007 → Sep. 2008

**Cosupervisor: Søren Olsen (DIKU, Copenhagen, Denmark)**

Master student at DIKU, Copenhagen, Denmark

Topic: *Tracking the Sea-Breeze Front in Satellite MSG Images*

- **Pierre Petitprez** – Apr. 2007 → Sep. 2007

**Cosupervisor: Vincent Lepetit (CVLab / EPFL, Lausanne, Switzerland)**

Master student at UBP / ISIMA, Clermont-Ferrand, France

Topic: *Monocular Feature-Based Paper Tracking*

- **Manuel Grand-Brochier** – Nov. 2006 → Jun. 2007

Master student at UBP, Clermont-Ferrand, France

Topic: *Reconstruction of a Deformable Surface Reconstruction Seen on a Static Background in the Presence of Occlusions*

- **Muneeb Abid** – Nov. 2006 → Jun. 2007

**Main supervisor: François Berry (LASMEA)**

Master student at UBP, Clermont-Ferrand, France

Recipient of a grant from the Pakistani government

Topic: *Hardware Implementation of Plane-Based Visual Tracking*

- **Ludovic Najac** – Jan. 2005 → Jun. 2005

Master student at UBP, Clermont-Ferrand, France

Topic: *Estimation of Thin-Plate Splines from Keypoints*

## • Other Interns

- **Florian Dubuisson** and **Alexandre Marié** – Nov. 2007 → now

**Main supervisors: Christophe Tilmant (LASMEA) and Laurent Sarry (ERIM)**

Fourth year students in Computer Science at UBP, ISIMA, Clermont-Ferrand

Topic: *3D Reconstruction of Coronary Stents*

- **Jean-Marc Thiesse** – Nov. 2007 → now

**Cosupervisor: Michel Grédiac (LaMI, Clermont-Ferrand)**

Fifth year student in Computer Science at UBP, ISIMA, Clermont-Ferrand

Topic: *Vision-based Deformable Surface Metrology*

- **Samir Khoualed** – May to Aug. 2007

Engineer from Polytech' Nice, France

Topic: *Interest Point Tracking in Videos*

- **Abdoulaye Faye** – Apr. and May 2007  
**Main supervisor: Vincent Gay-Bellile (LASMEA / CEA)**  
 Fourth year student in Electronics and Computer Science at UBP, Clermont-Ferrand  
 Topic: *Rigid Structure-from-Motion in the Presence of Deformable Objects*
- **Fabien Chorel and Jean-Marc Thiesse** – Oct. 2006 → Mar. 2007  
**Main supervisor: Mathieu Perriollat (LASMEA)**  
 Fourth year students in Computer Science at UBP, ISIMA, Clermont-Ferrand  
 Topic: *An Intuitive Interface for the Generative Paper Model*
- **Alexis Pinon** – Apr. 2006 → Jul. 2006  
 Third year student in Computer Science at IUT, Clermont-Ferrand  
 Topic: *A Visual Demonstrator For 3D Computer Vision*
- **Pierre Petitprez and Mathieu Lapointe** – Oct. 2005 → Aug. 2006  
 Fourth year students in Computer Science at UBP, ISIMA, Clermont-Ferrand  
 Topic: *Line Triangulation From Image Triplets*
- **Ning Ma** – May and Jun. 2005  
 Fourth year student in Electronics and Computer Science at UBP, Clermont-Ferrand  
 Topic: *An Image Sequence Database on the Network*
- **Julien Jarrige and Fabien Ghisalberti** – Nov. 2004 → Apr. 2005  
 Fifth year students in Computer Science at UBP, ISIMA, Clermont-Ferrand  
 Topic: *3D Reconstruction of Volcanic Structures*
- **Mathieu Coquerelle** – Oct. 2002 → Jun. 2003  
 Fourth year student in Computer Science at UJF, Grenoble  
 Topic: *Structure-From-Motion Using Pencils of Points*
- **Laurent Eyraud** – Jul. and Aug. 2002  
 Fourth year student in Computer Science at UJF, Grenoble  
 Topic: *Image Matching by Iterative Estimation of the Camera Motion*
- **Michael Ortega** – Jul. and Aug. 2002  
 Fourth year student in Computer Science at UJF, Grenoble  
 Topic: *Texture Extraction From Multiple Images*
- **David Fernandes and Michael Ortega** – Oct. 2001 → Jun. 2002  
 Fourth year students in Computer Science at UJF, Grenoble  
 Topic: *Non-Metric Image-Based Rendering*

## Classes

- **Classes at DIKU, Dpt. of Computer Science, University of Copenhagen, Denmark**
  - **Image Registration – 2D, 3D, rigid and deformable scenes**  
 Master course (20 hours), in 2007/2008
  - **3D Computer Vision**  
 Master course (20 hours), in 2006/2007
- **Classes at UBP (Université Blaise Pascal), Clermont-Ferrand, France**
  - **Digital Image Processing**  
 Master course (2 x 8 hours) in 2007/2008 (with Thierry Chateau)
  - **Visual Geometry For 3D Vision**  
 Master course (14 hours), in 2004/2005, 2005/2006, 2006/2007 and 2007/2008
  - **Numerical Optimisation With MATLAB**  
 Practicals (32 hours) for fourth year students at ENSCCF, in 2005/2006 and 2006/2007

- **Class at VIPS, University of Verona, Italy**
  - **Image Registration – 2D, 3D, rigid and deformable scenes**  
Master course (20 hours), in 2007/2008
  
- **Short courses**
  - **Structure-from-Motion: 3D Feature and Camera Reconstruction from Multiple Images of a Rigid Scene**  
Invited lecture (1:30 hours) for Master students, Technical Univ. of Munich, Germany, February 2006, February 2007
  - **Computer Vision: An Overview**  
Short course (4 hours) for Master students, UBP, 2005/2006, 2006/2007 and 2007/2008
  - **Uncalibrated 3D Vision**  
Invited short course (3 hours) for PhD students, University of Montpellier II, France, March 2005, March 2007
  
- **Other**
  - **C++ Coursework Module**  
Practicals for second year undergraduates, University of Oxford, UK, in 2003/2004
  
- **Classes at UJF (Université Joseph Fourier), Grenoble, France**
  - **Image Synthesis and Vision**  
Practicals for Bachelor students, in 2001/2002 and 2002/2003
  - **Multiresolution and Visualisation**  
Practicals for fifth year students at ISTG, in 2002/2003
  - **Computers Architecture: Software and Hardware**  
Course for third year students, in 2002/2003
  - **Algorithmic**  
Course and practicals, for first year students, in 2000/2001 and 2001/2002
  - **Internet and the World Wide Web**  
Course and practicals, for second year students, in 2000/2001

## Participation in Research Projects

### **SURF-3D (3D Reconstruction of Deformable Surfaces from Endoscopic Images)**

Bilateral PHC Procope project with Nassir Navab at the TUM, Munich, Germany

### **3D Reconstruction of Surfaces by Integrating Mechanical Models**

Bilateral PHC Alliance project with Lourdes Agapito at Queen Mary, London, UK

### **SUN (Surface Unraveling with Application to Flexible Document Scanning)**

Bilateral project with DIKU, Copenhagen Denmark funded by the French embassy

### **HFIBMR (High Fidelity Image-Based Modeling and Rendering)**

ANR-funded 3 year project starting late 2007

258k€

### **VIRAGO (Vision Rapide)**

ANR-funded 4 year project on CMOS cameras starting late 2007

180k€

### **Research contract with CEA**

Vision-based outdoor localization, this includes a 18 month postdoc from oct 2007

15k€

<b>CNRS Researcher Exchange with Australia</b>	3k€
Summer 2007, grant num. 19821, exchange with Richard Hartley at the University of Canberra	
<b>PMoCap (Computer Vision Based Motion Capture for Paper)</b>	5k€
National GdR ISIS project, 2007	
<b>A Machine Learning Approach to Deformable Object Modeling</b>	2k€
Bilateral France / Germany BFHZ project, 2007, with Technical Univ. of Munich	
<b>STANDS-MSG (Spatio-Temporal Analysis of Deformable Structures in MSG Images)</b>	103k€
ANR-funded 3 year project, 2006-2009	
<b>AirPhoto</b>	N/A
Collaboration with the company “The Unkelbach Valley Software Work” (Germany, 2004/2005)	
<b>VISIRE (Vision-based 3D Reconstruction)</b>	~ 2M€
European IST project 10756, 1999-2003	
<b>CALIPSOO (Calibration from planar objects)</b>	5k€
National GdR ISIS project, 2002	

## Consulting

- Consultant for FittingBox, a spin-off based in Toulouse, France (2007/today)

## Evaluation

- Expert for CSOSG (concepts systèmes et outils pour la sécurité globale) for the 2008 Call For Projects from the ANR (French National Research Agency)
- Expert for RIAM (réseau pour la Recherche et l'Innovation en Audiovisuel et Multimédia) for the 2007 Call For Projects from the ANR (French National Research Agency)
- Expert for TechLog (ex-RNTL) for the 2007 Call For Projects from the ANR (French National Research Agency)
- Expert for CSOSG (concepts systèmes et outils pour la sécurité globale) for the 2007 Call For Projects from the ANR (French National Research Agency)
- Expert for CSOSG (concepts systèmes et outils pour la sécurité globale) for the 2006 Call For Projects from the ANR (French National Research Agency)
- Expert for RIAM (réseau pour la Recherche et l'Innovation en Audiovisuel et Multimédia) for the 2006 Call For Projects from the ANR (French National Research Agency)
- Expert for RIAM (réseau pour la Recherche et l'Innovation en Audiovisuel et Multimédia) for the 2005 Call For Projects from the French Ministry of Research

## Miscellaneous

2007/today	Replacement board member of the international exchanges board at UBP – UFR ST
2007/today	Replacement board member of the recruitment committee at UBP (CSE 61ème section)
2007/today	<b>Responsible for the “Models and Software for Health, the Living, the Physics” research project</b> of the Research Federation TIMS at LASMEA laboratory
2007/today	Responsible for the Socrates-Erasmus student exchange scheme with DIKU, Denmark
2006/today	Member of the <b>LASMEA laboratory council</b>
2005	Organizer of the annual meeting of the GRAVIR group of the LASMEA laboratory

2005/today Installation and administration of the ComSee team's website  
2004/2007 Co-organizer of the **seminars of the GRAVIR group of the LASMEA laboratory**  
2004 Recipient of an IEEE travel grant for the CVPR conference, Washington, USA  
2001/2003 Organizer of the Image Synthesis, Vision and Robotics seminars at INRIA Rhône-Alpes  
2003 Organizer of the welcoming workshop for the new teaching assistants in Grenoble  
2003 Recipient of an IEEE travel grant for the ICCV conference, Nice, France  
2001 Organizer of the annual meeting of the Perception (ex MOVI) team of the GRAVIR lab.  
2001 Recipient of an IEEE travel grant for the CVPR conference, Hawaiï, USA

Other: speaker at “fête de la science” 2002 (Grenoble) and 2007 (Clermont-Ferrand).

## Computer Science Skills

Programming langages	C, C++, Matlab, Pascal, VRML, HTML
Integrated Development Environments	Visual C++, Delphi, C++ Builder
Operating Systems	Unix/Linux, DOS/Windows
Miscellaneous	Maple (symbolic calculus), OpenGL

# Publications

Note: Most of these publications can be downloaded from  
[WWW.LASMEA.UNIV-BPCLERMONT.FR/PERSONNEL/ADRIEN.BARTOLI/PUBLICATIONS](http://WWW.LASMEA.UNIV-BPCLERMONT.FR/PERSONNEL/ADRIEN.BARTOLI/PUBLICATIONS)

## Journals (12)

- [J12] **Groupwise Geometric and Photometric Direct Image Registration**  
A. Bartoli  
*IEEE Transactions on Pattern Analysis and Machine Intelligence*, accepted December 2007
- [J11] **Maximizing the Predictivity of Smooth Deformable Image Warps Through Cross-Validation**  
A. Bartoli  
*Journal of Mathematical Imaging and Vision*, special issue: tribute to Peter Johansen, accepted December 2007
- [J10] **Implicit Non-Rigid Structure-from-Motion with Priors**  
S. Olsen and A. Bartoli  
*Journal of Mathematical Imaging and Vision*, special issue: tribute to Peter Johansen, accepted December 2007
- [J09] **Triangulation for Points on Lines**  
A. Bartoli and J.-T. Lapresté  
*Image and Vision Computing*, Vol. 26, No. 2, pp. 315-324, February 2008
- [J08] **A Random Sampling Strategy For Piecewise Planar Scene Segmentation**  
A. Bartoli  
*Computer Vision and Image Understanding*, Vol. 105, No. 1, pp. 42-59, January 2007
- [J07] **Affine Approximation for Direct Batch Recovery of Euclidean Motion from Sparse Data**  
N. Guilbert, A. Bartoli and A. Heyden  
*International Journal of Computer Vision*, Vol. 69, No. 3, pp. 317-333, September 2006
- [J06] **Structure-From-Motion Using Lines: Representation, Triangulation and Bundle Adjustment**  
A. Bartoli and P. Sturm  
*Computer Vision and Image Understanding*, Vol. 100, No. 3, pp. 416-441, December 2005
- [J05] **The Geometry of Dynamic Scenes - On Coplanar and Convergent Linear Motions Embedded in 3D Static Scenes**  
A. Bartoli  
*Computer Vision and Image Understanding*, Vol. 98, No. 2, pp. 223-238, May 2005
- [J04] **Motion Panoramas**  
A. Bartoli, N. Dalal and R. Horaud  
*Computer Animation and Virtual Worlds*, Vol. 15, No. 5, pp. 501-517, November 2004
- [J03] **The 3D Line Motion Matrix and Alignment of Line Reconstructions**  
A. Bartoli and P. Sturm  
*International Journal of Computer Vision*, Vol. 57, No. 3, pp. 159-178, May/June 2004
- [J02] **Non-Linear Estimation of the Fundamental Matrix with Minimal Parameters**  
A. Bartoli and P. Sturm  
*IEEE Transactions on Pattern Analysis and Machine Intelligence*, Vol. 26, No. 4, pp. 426-432, April 2004
- [J01] **Constrained Structure and Motion From Multiple Uncalibrated Views of a Piecewise Planar Scene**  
A. Bartoli and P. Sturm  
*International Journal of Computer Vision*, Vol. 52, No. 1, pp. 45-64, April 2003

## Submitted Journals (5)

### **On Aligning Sets of Points Reconstructed From Uncalibrated Affine Cameras**

H. Martinsson, [A. Bartoli](#), F. Gaspard and J.-M. Lavest  
*Image and Vision Computing*. Submitted Jul. 2006

### **Feature-Driven Direct Non-Rigid Image Registration**

V. Gay-Bellile, [A. Bartoli](#) and P. Sayd  
*Computer Vision and Image Understanding*, Submitted Jun. 2007

### **On Computing the Prediction Sum of Squares Statistic in Linear Least Squares Problems with Multiple Parameter or Measurement Sets**

[A. Bartoli](#)  
*IEEE Transactions on Neural Networks*, Submitted Dec. 2007

### **Developable Structure-from-Motion with Multiple Cameras – Application to Paper Shape Capture**

M. Perriollat and [A. Bartoli](#)  
*IEEE Transactions on Pattern Analysis and Machine Intelligence*, Submitted Feb. 2008

### **Direct Estimation of Non-Rigid Registrations with Image-Based Self-Occlusion Reasoning**

V. Gay-Bellile, [A. Bartoli](#) and P. Sayd  
*IEEE Transactions on Pattern Analysis and Machine Intelligence*, Submitted Mar. 2008

## Invited Papers (1)

### [V01] **Direct Image Registration With Gain and Bias**

[A. Bartoli](#)  
*Topics in Automatic 3D Modeling and Processing Workshop*, Verona, Italy, March 2006

## Proceedings (2)

### [P02] **DEFORM'06 – Proceedings of the Workshop on Image Registration in Deformable Environments**

[A. Bartoli](#), N. Navab and V. Lepetit  
Workshop associated to BMVC'06, held in Edinburgh, UK, in September 2006

### [P01] **ORASIS'05 – Proceedings of the "Congrès des jeunes chercheurs en vision par ordinateur"**

T. Chateau and [A. Bartoli](#)  
Meeting held in Fournol, France, in May 2005

## Peer-Reviewed International Conferences and Workshops (48)

### [I48] **Automatic Quasi-Isometric Surface Recovery and Registration from 4D Range Data**

T. Collins, [A. Bartoli](#) and R. Fisher  
*BMVA Symposium on 3D Video – Analysis, Display and Applications*, London, UK, Feb. 2008

### [I47] **Deformable Surface Augmentation in Spite of Self-Occlusions**

V. Gay-Bellile, [A. Bartoli](#) and P. Sayd  
*ISMAR'07 - IEEE / ACM Int'l Symposium on Mixed and Augmented Reality*, Nara, Japan, Nov. 2007

### [I46] **Direct Estimation of Non-Rigid Registrations with Image-Based Self-Occlusion Reasoning**

V. Gay-Bellile, [A. Bartoli](#) and P. Sayd  
*ICCV'07 - IEEE Int'l Conf. on Computer Vision*, Rio de Janeiro, Brazil, October 2007

### [I45] **Adaptive Evolution of 3D Curves for Quality Control**

- H. Martinsson, F. Gaspard, [A. Bartoli](#) and J.-M. Lavest  
WISP'07 – IEEE *Int'l Symposium on Intelligent Signal Processing*, Alcalá, Spain, October 2007
- [I44] **Implementation of an Image Registration Algorithm on an Heterogeneous Platform**  
M. Abid, F. Berry, F. Dias, [A. Bartoli](#), and S. Prasad Sah  
ICDSC'07 - ACM / IEEE *Int'l Conf. on Distributed Smart Cameras*, PhD forum, Vienna, Austria, September 2007
- [I43] **Direct Image Registration with Adaptive Multi-Resolution**  
C. Grava, [A. Bartoli](#), V. Gay-Bellile, V. Buzuloiu and J.-M. Lavest  
VVG'07 - *Workshop Vision, Video and Graphics at BMVC'07*, Warwick, UK, September 2007
- [I42] **Using Priors for Improving Generalization in Non-Rigid Structure-from-Motion**  
S. Olsen and A. Bartoli  
BMVC'07 - *British Machine Vision Conf.*, Warwick, UK, September 2007
- [I41] **Segmented AAMs Improve Person-Independent Face Fitting**  
J. Peyras, A. Bartoli, H. Mercier and P. Dalle  
BMVC'07 - *British Machine Vision Conf.*, Warwick, UK, September 2007
- [I40] **Feature-Driven Direct Non-Rigid Image Registration**  
V. Gay-Bellile, A. Bartoli and P. Sayd  
BMVC'07 - *British Machine Vision Conf.*, Warwick, UK, September 2007
- [I39] **An Adaptive Multi-Resolution Algorithm for Motion Estimation in Medical Image Sequences**  
C. Grava, [A. Bartoli](#), V. Gay-Bellile, V. Buzuloiu and J.-M. Lavest  
ECCTD'07 - IEEE *European Conf. on Circuit Theory and Design*, Sevilla, Spain, August 2007
- [I38] **Joint Reconstruction and Registration of a Deformable Planar Surface Observed by a 3D Sensor**  
U. Castellani, V. Gay-Bellile and [A. Bartoli](#)  
3DIM'07 – *Int'l Conf. on 3D Digital Imaging and Modeling*, Montréal, Québec, Canada, August 2007
- [I37] **Energy-Based Reconstruction of 3D Curves for Quality Control**  
H. Martinsson, F. Gaspard, [A. Bartoli](#) and J.-M. Lavest  
EMMCVPR'07 – IAPR *Int'l Workshop on Energy Minimization Methods in Computer Vision and Pattern Recognition*, EZhou, Hubei, China, August 2007
- [I36] **A Quasi-Minimal Model for Paper-Like Surfaces**  
M. Perriollat and [A. Bartoli](#)  
BenCOS'07 – ISPRS *Int'l Workshop “Towards Benchmarking Automated Calibration, Orientation, and Surface Reconstruction from Images” at CVPR'07*, Minneapolis, USA, June 2007
- [I35] **Kinematics From Lines in a Single Rolling Shutter Image**  
O. Ait-Aider, [A. Bartoli](#) and N. Andreff  
CVPR'07 – IEEE *Int'l Conf. on Computer Vision and Pattern Recognition*, Minneapolis, USA, June 2007
- [I34] **Generalized Thin-Plate Spline Warps**  
[A. Bartoli](#), M. Perriollat and S. Chambon  
CVPR'07 – IEEE *Int'l Conf. on Computer Vision and Pattern Recognition*, Minneapolis, USA, June 2007
- [I33] **Algorithms for Batch Matrix Factorization with Application to Structure-from-Motion**  
J.-P. Tardif, [A. Bartoli](#), M. Trudeau, N. Guilbert and S. Roy  
CVPR'07 – IEEE *Int'l Conf. on Computer Vision and Pattern Recognition*, Minneapolis, USA, June 2007
- [I32] **On Constant Focal Length Self-Calibration From Multiple Views**  
B. Bocquillon, [A. Bartoli](#), P. Gurdjos and A. Crouzil  
CVPR'07 – IEEE *Int'l Conf. on Computer Vision and Pattern Recognition*, Minneapolis, USA, June 2007

2007

- [I31] **Shadow Resistant Direct Image Registration**  
D. Pizarro and [A. Bartoli](#)  
SCIA'07 – *Scandinavian Conf. on Image Analysis*, Aalborg, Denmark, June 2007
- [I30] **Reconstruction of 3D Curves for Quality Control**  
H. Martinsson, F. Gaspard, [A. Bartoli](#) and J.-M. Lavest  
SCIA'07 – *Scandinavian Conf. on Image Analysis*, Aalborg, Denmark, June 2007
- [I29] **Image Registration by Combining Thin-Plate Splines with a 3D Morphable Model**  
V. Gay-Bellile, M. Perriollat, [A. Bartoli](#) and P. Sayd  
ICIP'06 – *Int'l Conf. on Image Processing*, Atlanta, GA, USA, October 2006
- [I28] **Groupwise Geometric and Photometric Direct Image Registration**  
[A. Bartoli](#)  
BMVC'06 – *British Machine Vision Conference*, Edinburgh, UK, pp. 157-166, Vol. I, September 2006
- [I27] **A Single Directrix Quasi-Minimal Model for Paper-Like Surfaces**  
M. Perriollat and [A. Bartoli](#)  
DEFORM'06 – *Workshop on Image Registration in Deformable Environments at BMVC'06*, Edinburgh, UK, pp. 11-20, September 2006
- [I26] **Triangulation for Points on Lines**  
[A. Bartoli](#) and J.-T. Lapresté  
ECCV'06 – *European Conf. on Computer Vision*, Graz, Austria, pp. 189-200, vol. III, May 2006
- [I25] **Towards 3D Motion Estimation from Deformable Surfaces**  
[A. Bartoli](#)  
ICRA'06 – *IEEE Int'l Conf. on Robotics and Automation*, Orlando, Florida, USA, May 2006
- [I24] **Feature-Based Estimation of Radial Basis Mappings for Non-Rigid Registration**  
V. Charvillat and [A. Bartoli](#)  
VMV'05 - *Int'l Fall Workshop on Vision, Modeling and Visualization*, Erlangen, Germany, pp. 195-199, November 2005
- [I23] **Handling Missing Data in the Computation of 3D Affine Transformations**  
H. Martinsson, [A. Bartoli](#), F. Gaspard and J.-M. Lavest  
EMMCVPR'05 – *IAPR Int'l Workshop on Energy Minimization Methods in Computer Vision and Pattern Recognition*, St. Augustine, Florida, USA, pp. 90-106, November 2005
- [I22] **A Batch Algorithm For Implicit Non-Rigid Shape and Motion Recovery**  
[A. Bartoli](#) and S. Olsen  
WDV'05 - *Workshop on Dynamical Vision at ICCV'05*, Beijing, China, October 2005
- [I21] **Estimating the Pose of a 3D Sensor in a Non-Rigid Environment**  
[A. Bartoli](#)  
WDV'05 - *Workshop on Dynamical Vision at ICCV'05*, Beijing, China, October 2005
- [I20] **On Aligning Sets of Points Reconstructed From Uncalibrated Affine Cameras**  
[A. Bartoli](#), H. Martinsson, F. Gaspard and J.-M. Lavest  
SCIA'05 - *Scandinavian Conference on Image Analysis*, Joensuu, Finland, pp. 531-540, June 2005
- [I19] **Euclidean Reconstruction Independent on Camera Intrinsic Parameters**  
E. Malis and [A. Bartoli](#)  
IROS'04 – *IEEE / RSJ Int'l Conf. on Intelligent Robots Systems*, Sendai, Japan, pp. 2313-2318, October 2004
- [I18] **Direct Estimation of Non-Rigid Registrations**  
[A. Bartoli](#) and A. Zisserman

- BMVC'04 - *British Machine Vision Conf.*, London, UK, pp. 899-908, vol. II, September 2004
- [I17] **Augmenting Images of Non-Rigid Scenes Using Point and Curve Correspondences**  
A. Bartoli, E. von Tunzelmann and A. Zisserman  
CVPR'04 - *IEEE Int'l Conf. on Computer Vision and Pattern Recognition*, Washington, DC, USA, pp. 699-706, vol. I, June 2004
- [I16] **A Framework for Pencil-of-Points Structure-From-Motion**  
A. Bartoli, M. Coquerelle and P. Sturm  
ECCV'04 - *European Conf. on Computer Vision*, Prague, Czech Republic, pp. 28-40, vol. II, May 2004
- [I15] **Towards Gauge Invariant Bundle Adjustment: A Solution Based on Gauge Dependent Damping**  
A. Bartoli  
ICCV'03 - *IEEE Int'l Conf. on Computer Vision*, Nice, France, pp. 760-765, vol. II, October 2003
- [I14] **Multiple-View Structure and Motion from Line Correspondences**  
A. Bartoli and P. Sturm  
ICCV'03 - *IEEE Int'l Conf. on Computer Vision*, Nice, France, pp. 207-212, vol. I, October 2003
- [I13] **Batch Recovery of Multiple Views with Missing Data using Direct Sparse Solvers**  
N. Guilbert and A. Bartoli  
BMVC'03 - *British Machine Vision Conf.*, Norwich, UK, pp. 63-72, vol. I, September 2003
- [I12] **VISIRE. Photorealistic 3D Reconstruction from Video Sequences**  
T. Rodriguez, P. Sturm, M. Wilczkowiak, A. Bartoli, M. Personnaz, N. Guilbert, F. Kahl, M. Johansson, A. Heyden, J. M. Menendez, J. I. Ronda and F. Jaureguizar  
ICIP'03 - *IEEE Int'l Conf. on Image Processing*, Barcelona, Spain, September 2003
- [I11] **Motion from 3D Line Correspondences: Linear and Non-Linear Solutions**  
A. Bartoli, R. Hartley and F. Kahl  
CVPR'03 - *IEEE Int'l Conf. on Computer Vision and Pattern Recognition*, Madison, Wisconsin, USA, pp. 477-484, vol. I, June 2003
- [I10] **From Video Sequences to Motion Panoramas**  
A. Bartoli, N. Dalal, B. Bose and R. Horaud  
MOTION'02 - *IEEE Workshop on Motion and Video Computing*, Orlando, USA, pp. 201-207, December 2002
- [I09] **The Geometry of Dynamic Scenes - On Coplanar and Convergent Linear Motions Embedded in 3D Static Scenes**  
A. Bartoli  
BMVC'02 - *British Machine Vision Conf.*, Cardiff, UK, pp. 394-403, September 2002
- [I08] **A Unified Framework for Quasi-Linear Bundle Adjustment**  
A. Bartoli  
ICPR'02 - *IAPR Int'l Conf. on Pattern Recognition*, Québec, Canada, pp. 560-563, August 2002
- [I07] **On the Non-Linear Optimization of Projective Motion Using Minimal Parameters**  
A. Bartoli  
ECCV'02 - *European Conf. on Computer Vision*, Copenhagen, Denmark, pp. 340-354, May 2002
- [I06] **Minimal Metric Structure and Motion from Three Affine Images**  
M.-A. Ameller, A. Bartoli and L. Quan  
ACCV'02 - *Asian Conf. on Computer Vision*, Melbourne, Australia, pp. 356-361, January 2002
- [I05] **The 3D Line Motion Matrix and Alignment of Line Reconstructions**  
A. Bartoli and P. Sturm  
CVPR'01 - *IEEE Int'l Conf. on Computer Vision and Pattern Recognition*, Hawaii, USA, pp. 287-292, December 2001

- [I04] **Piecewise Planar Segmentation for Automatic Scene Modeling**  
A. Bartoli  
 CVPR'01 - *IEEE Int'l Conf. on Computer Vision and Pattern Recognition*, Hawaii, USA, pp. 283-289, December 2001
- [I03] **Projective Structure and Motion from Two Views of a Piecewise Planar Scene**  
A. Bartoli, P. Sturm and R. Horaud  
 ICCV'01 - *IEEE Int'l Conf. on Computer Vision*, Vancouver, Canada, pp. 593-598, July 2001
- [I02] **Constrained Structure and Motion From N Views of a Piecewise Planar Scene**  
A. Bartoli and P. Sturm  
 VAA'01 - *Int'l Symposium on Virtual and Augmented Architecture*, Dublin, Ireland, pp. 195-206, June 2001
- [I01] **Structure and Motion from Two Uncalibrated Views Using Points on Planes**  
A. Bartoli, P. Sturm and R. Horaud  
 3DIM'01 - *Int'l Conf. on 3D Digital Imaging and Modeling*, Québec, Canada, pp. 83-90, June 2001

## Peer-Reviewed National Conferences (15)

- [N15] **Reconstruction de surface par validation croisée**  
 F. Brunet, A. Bartoli, R. Malgouyres et N. Navab  
 ROADEF'08 – *Journées de recherche opérationnelle et d'aide à la décision*, Clermont-Ferrand, France, février 2008
- [N14] **Recalage non-rigide direct avec prise en compte des auto-occlusions au niveau image**  
 V. Gay-Bellile, A. Bartoli et P. Sayd  
 RFIA'08 - *Congrès francophone de Reconnaissance des Formes et Intelligence Artificielle*, Amiens, France, janvier 2008
- [N13] **Gestion des occultations pour l'augmentation d'une surface déformable**  
 V. Gay-Bellile, A. Bartoli et P. Sayd  
 CORESA'07 - *Journées "Compression et Représentation des Signaux Audiovisuels"*, Montpellier, France, Novembre 2007  
**Awarded the best student paper prize**
- [N12] **Estimation directe d'alignements non-rigides guidés par primitives**  
 V. Gay-Bellile, A. Bartoli et P. Sayd  
 ORASIS'07 - *Onzième congrès francophone des jeunes chercheurs en vision par ordinateur*, Obernai, France, Juin 2007
- [N11] **Modélisation et reconstruction de papier à partir de plusieurs images**  
 M. Perriollat et A. Bartoli  
 ORASIS'07 - *Onzième congrès francophone des jeunes chercheurs en vision par ordinateur*, Obernai, France, Juin 2007
- [N10] **Autocalibrage multi-vues d'une distance focale et mouvements critiques associés**  
 B. Bocquillon, A. Bartoli, P. Gurdjos et A. Crouzil  
 ORASIS'07 - *Onzième congrès francophone des jeunes chercheurs en vision par ordinateur*, Obernai, France, Juin 2007
- [N09] **Reconstruction de courbes 3D pour le contrôle de conformité**  
 H. Martinsson, F. Gaspard, A. Bartoli et J.-M. Lavest  
 ORASIS'07 - *Onzième congrès francophone des jeunes chercheurs en vision par ordinateur*, Obernai, France, Juin 2007
- [N08] **A Batch Algorithm For Implicit Non-Rigid Shape and Motion Recovery**  
A. Bartoli and S. Olsen  
*Danish Machine Vision Conference*, Copenhagen, Denmark, pp. 43-52, August 2006

- [N07] **A Single Directrix Quasi-Minimal Model for Paper-Like Surfaces**  
M. Perriollat and [A. Bartoli](#)  
*Danish Machine Vision Conference*, Copenhagen, Denmark, pp. 43-52, August 2006
- [N06] **Alignement de reconstructions tridimensionnelles affines en présence de données images manquantes**  
H. Martinsson, [A. Bartoli](#), F. Gaspard et J.-M. Lavest  
RFIA'06 - *Congrès francophone de Reconnaissance des Formes et Intelligence Artificielle*, Tours, France, janvier 2006
- [N05] **Des séquences vidéo aux panoramas de mouvement**  
[A. Bartoli](#), N. Dalal, B. Bose et R. Horaud  
CORESA'03 - *Journées "COmpression et REprésentation des Signaux Audiovisuels"*, Lyon, France, pp. 171-174, janvier 2003
- [N04] **Reconstruction métrique minimale à partir de trois caméras affines**  
M.-A. Ameller, [A. Bartoli](#) et L. Quan  
RFIA'02 - *Congrès francophone de Reconnaissance des Formes et Intelligence Artificielle*, Angers, France, pp. 471-477, janvier 2002
- [N03] **La matrice de mouvement pour droites 3D, application à l'alignement de reconstructions de droites**  
[A. Bartoli](#) et P. Sturm  
RFIA'02 - *Congrès francophone de Reconnaissance des Formes et Intelligence Artificielle*, Angers, France, pp. 29-37, janvier 2002
- [N02] **Segmentation en plans pour la modélisation automatique à partir d'images**  
[A. Bartoli](#)  
*Journée "Coopération Analyse d'Image et Modélisation"*, Lyon, France, pp. 37-40, juin 2001
- [N01] **Triangulation projective contrainte par multi-coplanarité**  
[A. Bartoli](#) et P. Sturm  
ORASIS'01 - *Huitième congrès francophone des jeunes chercheurs en vision par ordinateur*, Cahors, France, pp. 47-56, Juin 2001

## Research Reports (4)

- [R04] **Motion Panoramas**  
[A. Bartoli](#), N. Dalal and R. Horaud  
*INRIA Research Report 4771*, Grenoble, France, March 2003
- [R03] **Euclidean Bundle Adjustment Independent of Camera Intrinsic Parameters**  
E. Malis and [A. Bartoli](#)  
*INRIA Research Report 4377*, Sophia, France, December 2001
- [R02] **Three New Algorithms for Projective Bundle Adjustment with Minimum Parameters**  
[A. Bartoli](#) and P. Sturm  
*INRIA Research Report 4236*, Grenoble, France, August 2001
- [R01] **A Projective Framework for Structure and Motion Recovery From Two Views of a Piecewise Planar Scene**  
[A. Bartoli](#), P. Sturm and R. Horaud  
*INRIA Research Report 4070*, Grenoble, France, October 2000



## Abbreviations

### Some French Institutions and Universities

CNRS	Centre National de la Recherche Scientifique
INRIA	Institut National de Recherche en Informatique et Automatique
INPG	Institut National Polytechnique de Grenoble
UJF	Université Joseph Fourier (located in Grenoble, France)
UBP	Université Blaise Pascal (located in Clermont-Ferrand, France)

### Some laboratories

LASMEA	Laboratoire des Sciences des Matériaux pour l'Electronique, et d'Automatique (located in Clermont-Ferrand, France)
GRAVIR	Groupe pour l'Automatique, la Vision et la Robotique (at LASMEA)
GRAVIR	Graphisme, Vision et Robotique (located in INRIA, Grenoble, France)
RRG	Robotics Research Group (located in Oxford, UK)
DIKU	Department of Computer Science, University of Copenhagen, Denmark