

# Cordelia Schmid – Curriculum Vitae

Inria Grenoble Rhône-Alpes, THOTH team, LJK lab  
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## Education

- Habilitation, Computer Science, Institut National Polytechnique de Grenoble, November 2001. Dissertation: From image matching to learning visual models.
- PhD, Computer Science, Institut National Polytechnique de Grenoble, July 1996. Dissertation: Image matching and retrieval based on local greyvalue invariants, with distinction “Mention très honorable avec félicitations”. Advisor: Roger Mohr.
- M.S., Computer Science, University of Karlsruhe, July 1992, with distinction “sehr gut”.

## Awards and distinctions

- Member of the German National Academy of Sciences, Leopoldina, 2017.
- Grand Prix Inria - Académie des sciences, 2016.
- Humbolt research award, Alexander von Humbolt Foundation, Germany, 2015.
- Karen Spärck Jones lecture, annual event of the British Computer Society that honours women in computing research, 2015.
- Clarivate Analytics (former Thomson Reuters) Highly Cited Researcher, 2014, 2015 & 2016.
- Longuet-Higgins prize for fundamental contributions in computer vision that have withstood the test of time, 2006, 2014 & 2016.
- ERC advanced grant ALLEGRO, 2013.
- IEEE Fellow, 2012.
- Best paper award for the 2009 edition of the Pattern Recognition journal.
- Best poster prize, honorable mention, IEEE Conf. on Computer Vision and Pattern Recognition, 2008.
- Best paper award, honorable mention, Indian Conference on Computer Vision, Graphics and Image Processing, 2006.
- Best paper award, ISPRS Conf. on Automatic Extraction of GIS Objects from Digital Imagery, 1999.
- Best thesis award Institut National Polytechnique de Grenoble, 1997.

## Challenges and Competitions

- Winner of VOT-TIR 2015 tracking competition.
- Winner of Thumos 2014 action localization challenge.
- Winner of Thumos 2013 action classification challenge.
- Winner of TRECVID 2012 & 2013 multi-media event detection competition.
- Winner of TRECVID 2008 video copy detection competition.
- Winner of PASCAL Visual Object Classes Challenge Competitions, 2005–08, 10 & 11.

## Employment

- Research Director, Inria, second class 2004–2008, first class 2008–2015, exceptional class 2016—.
- Head of the THOTH Inria team, 2016—.
- Head of the LEAR Inria team, 2003–2015.
- Research Scientist, Inria, 1997–2004.
- Research Assistant, Oxford University, Robotics Research Group, 1996–1997.
- Ph.D. Fellowship, Marie Curie EU grant and Inria grant, 1993–1996.

## Professional activities

Editor-in-Chief:       • International Journal of Computer Vision (2013—).

Editorial Board:       • Foundations and Trends in Computer Graphics and Vision (2005—).  
                              • International Journal of Computer Vision (2004–2012).  
                              • IEEE Trans. on Pattern Analysis and Machine Intelligence (2001–2005).

General Chair:         • European Conference on Computer Vision, 2020.  
                              • IEEE Conference on Computer Vision and Pattern Recognition, 2015.

Program Chair:        • European Conference on Computer, 2012.  
                              • IEEE Conference on Computer Vision and Pattern Recognition, 2005.

- Workshop Chair:
- Workshop on Frontiers of Video Technology, San Jose, 2017.
  - ALLEGRO Workshop on Weakly Supervised Learning and Video Recognition, Grenoble, 2014 & 2015.
  - IPAM Workshop on Large Scale Multimedia Search, Los Angeles, US, 2012.
  - CVPR'09 Workshop on Feature Detectors and Descriptors, 2009.
  - Int. Workshop on Video, Barcelona, Spain, 2009.
  - 4th Int. Workshop on Object Recognition, Como, Italy, 2008.
  - 3rd Int. Workshop on Object Recognition, Siracusa, Italy, 2006.
  - 2nd Int. Workshop on Object Recognition, Taormina, Italy, 2004.
  - 1st Int. Workshop on Object Recognition, Taormina, Italy, 2003.
- Summer School Chair:
- Visual Recognition and Machine Learning Summer School, Paris, 2013.
  - Visual Recognition and Machine Learning Summer School, Grenoble, 2012.
  - Visual Recognition and Machine Learning Summer School, Paris, 2011.
  - Visual Recognition and Machine Learning Summer School, Grenoble, 2010.
- Area Chair:
- IEEE International Conf. on Computer Vision, 2003, 2005, 2009, 2013, 2015, 2017.
  - IEEE Conf. on Comp. Vision & Pattern Recog., 2000, 2004, 2007, 2010, 2013.
  - European Conference on Computer Vision, 2002, 2004, 2008, 2010, 2016.
  - Congrès de Reconnaissance de Formes et Intelligence Artif., 2004, 2008, 2010.
  - Asian Conference on Computer Vision, 2007.
  - Neural Information Processing Systems, 2005, 2006, 2012, 2017.
- Award committee:
- Oréal-UNESCO award France for Women in Sciences 2017.
  - Young researcher award 2014 & 2015
  - Longuet-Higgins award 2015.
  - Helmholtz award 1987–1999.
  - ECCV 2008 best paper prize.
  - NIPS 2006 best student paper.
- Supervision:
- 11 PhD students current; 26 PhD students graduated; two with awards: Longuet-Higgins award 2014 for K. Mikolajczyk & AFRIF PhD award 2014 for G. Cinbis.
  - 2 postdocs current; 16 postdocs past.
  - 1 engineer current; 11 engineers past.

- Teaching :
- Object recognition and computer vision, Master-2 MVA, ENS, 10 hours per year (equivalent 15hTD), 2008–2017.
  - Object recognition, Master-2 Computer Science, Grenoble University, 10 hours per year (equivalent 15hTD), 2001-04, 07-17.
  - Image databases, 3rd year ENSIMAG, 12 hours per year, 2002-03.
  - Object oriented software development, 2nd year ENSIMAG, 40 hours per year, 2001-03.
  - Analysis of algorithms, 2nd year ENSIMAG and ESISAR, 80 hours per year, 1998-01.
- Research evaluation:
- Member of a hiring committee at KTH, Stockholm, 2016.
  - Member of a hiring committee at MPI Intelligent Systems, 2016.
  - Member of a hiring committee at NTNU Trondheim, 2015.
  - Member of the evaluation panel for ERC starting grants, 2014.
  - Member of the PAMI-TC executive committee, 2014—.
  - Member of the PAMI-TC awards committee, 2013—.
  - Member of the “conseil d’AERES” (Agence d’évaluation de la recherche et de l’enseignement supérieur), 2007 - 2011.
  - Member of the evaluation committee for audiovisual and multimedia projects of Agence National de la Recherche (ANR), 2006 & 2007.
  - Reviewer for ERC grants, European projects, VENI (Netherlands), FACR (Québec), ANR (France), ANVAR (France), Israel Science Foundation, Austrian Science Fund, Vienna Science and Technology Fund, Czech Science Foundation.
  - Reviewer and examiner for 28 PhD and 9 HDR theses.
- Inria :
- Member of the “Comité scientifique”, Inria Grenoble, 2015—.
  - Scientific organization of the Inria evaluation for theme “Vision, Perception and Multimedia Interpretation”, 2014.
  - President of the Inria recruiting committee for Grenoble, 2009, 2010, 2013.
  - Member of the “bureau du comité de projet”, Inria Grenoble, 2007–2011.
  - Member of the “commission d’évaluation”, Inria, 2002–2011.
  - Member of 17 Inria recruiting committees (12 CR and 5 DR recruiting committees), 2002–2011.
  - Scientific organization of the Inria evaluation for theme “Cog B”, 2005.
  - Representative for international relations at Inria Grenoble, 2005–2007.
  - Member of the “commission emplois scientifiques” , Inria Grenoble, 2002–06.

Grants:

- Adobe Gift, 2017.
- Intel Network on Intelligent Systems, 2017.
- Amazon Academic Research Award, 2017-2018.
- Facebook University Gift, 2015-2020.
- Google Research Award, 2015–2016.
- ERC advanced grant ALLEGRO, 2013–2018.
- Research contract with Xerox, 2011-2013, 2014-2017.
- MSR-Inria project “Scientific image and video data mining”, 2008-13, 2014-2017.
- EU integrated project AXES, 2011–2014.
- Industrial contract with MBDA on pose and object identification, 2010-2013.
- QUAERO search engine, French Grant “OSEO”, 2008-13.
- “Géométrie algorithmique informationnelle et applications (GAIA)”, French Grant “ANR blanc”, 2007-11. Grand prix ANR du numérique.
- Prototype for an image search engine, French Grant “GRAVIT”, 2007-08.
- Inria associated team with CMU, UIUC and Willow/Inria, 2007-09.
- Industrial contract with MBDA on object recognition and detection, 2007-10.
- Cognitive-level annotation using latent statistical structure (CLASS), European Grant, 2006-09.
- Integrating knowledge, semantics and content for user-centered intelligent media services (aceMedia), European IP Grant, 2004-07.
- Pattern Analysis, Statistical Modeling and Computational Learning (PASCAL & PASCAL 2), “Network of Excellence”, European Grant, 2004-12.
- Modèles visuels et statistiques pour la reconnaissance de classes d’images, French Grant “ACI masse de données”, 2003-06.
- EADS postdoctoral grant on shape description, 2006.
- Industrial contract with MBDA on object detection and tracking, 2005-06.
- CNRS/UIUC Grant with Professor J. Ponce, 2000-06.
- Learning for Adaptable Visual Assistants (LAVA), EU IST Grant, 2002-05.
- Video Browsing, Exploration and Structuring (VIBES), European Grant, FET, 2000-04.
- Global Architecture for Indexing and Retrieval of Multimedia Documents (AGIR), French Grant, RNT, 1999-01.
- Industrial contract with Aérospatiale on matching of aerial images and missile images, 1999-01.
- Industrial contract with Alcatel on the development of a prototype for interactive video navigation, 1996-98.

Transfer :

- Patent, Z. Akata (25%), F. Perronnin (25%), Z. Harchaoui (25%), C. Schmid (25%), “Label-embedding view of attribute-based recognition”, filed 2013, published 2014. Transferred to Xerox.
- Patent, H. Jégou (70%), C. Schmid (20%), M. Douze (10%), “Dispositif d’aide à la reconnaissance d’image amélioré”, filed 2008, published 2011. Licensed to MilPix.
- Co-founder and scientific advisor of the Start-Up MilPix, 2008. Transfer of image search technology, including image description and large scale search software.
- Transfer of image classification software to the Start-Up WayWay, OMB Labs, 2014.
- Collaboration with the Aérospatiale section of MBDA, 2004-2013.
  - In-depth report on the state of the art in object recognition, 2004.
  - Transfer of image matching and point tracking software, 2005.
  - PhD of H. Harzallah on vehicle recognition, 2007-2010.
  - Innovation prize of MBDA for the PhD of H. Harzallah, 2010.
  - Research contract on object pose estimation, 2010-2013.
- Member of the scientific advisory board of IMRA-Europe, <http://www.imra-europe.com>, 2009-2013.
- Transfer of image retrieval and face recognition software to the Start-Up Adways, 2012.
- Transfer of face recognition software to the Start-Up Technosense, 2012.
- Transfer of product quantization software to Technicolor, 2011.
- Research license for image search software to Stanford University, San Diego University and California Institute of Technology, 2009.
- Transfer of image description software to KOLOR, 2009.

Software & Datasets :

- Software distributed for interest points detection and description, shape description, face and human detection, spatio-temporal features as well as large-scale image search and features aggregation, see <http://lear.inrialpes.fr/software>.
- Participation in producing several datasets for evaluating recognition algorithms, namely for image search, action recognition and recognition of shape-based object classes, see <http://lear.inrialpes.fr/data>.
- Demonstrator for our image search software. Best demonstration award for the demonstration “10 million images on my laptop” at RFIA 2010.

Dissemination  
& Mentoring:

- “Extraction d’informations à partir des images”, C. Schmid and J. Ponce. Les Big Data à Découvert. Editions du CNRS, 2017.
- Presentation on human action recognition in videos at the “Journées NeuroSTIC In’Tech 2016”, Grenoble, June 2016.
- Mentor for female PhD students at the workshop “Woman in Computer Vision”, in conjunction with CVPR’17 & CVPR’15.
- Mentor at the Doctoral Consortium, in conjunction with CVPR’16, ICCV’15, CVPR’14 & CVPR’10.
- Seminar for high school teachers on visual description and recognition, March 2013.
- “Automatic Recognition of Human Activities in Realistic Videos”, A. Gaidon, Z. Harchaoui and C. Schmid. ERCIM NEWS 95, October 2013.
- “De la reconnaissance de visages à l’interprétation de scènes complexes”, Françoise Breton and Cordelia Schmid. Article for the general public in “20 ans Inria Grenoble”, 2012.
- Panel member and mentor at the workshop “Women in Machine Learning”, in conjunction with NIPS’11.
- Presentation on large-scale image search at “Journée d’échanges et de formation”, LERTI, Inria, Grenoble, September 2010.
- Panelist on *Future Directions of Computer Vision* at IEEE CVPR 2008.
- Presentation of LEAR’s image search demonstrator at the 2003, 2005 and 2006 “Fête de la Science”, Grenoble and at the Forum 4i, Grenoble, 2006.
- Interviewed and filmed for *Computer Vision: Fact and Fiction*, a DVD produced by UC San Diego aimed at high school students and the general public, 2005, <http://vision.ucsd.edu/cvd>.
- Presentation on image search at the INTECH seminar “recherche par le contenu de documents multi-médias”, Grenoble, 2002.
- Presentation on invariant image description at the Inria-Industry seminar, Rocquencourt, 2001.
- Demonstration of the “interactive video” software, “journées Rencontres Inria-Industrie”, 1998.
- Demonstration of the image retrieval software, CEBIT’96.

# Invited presentations

## Invited conference and workshop presentations

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- Keynote speaker at ECML-PKDD 2017, Skopje, September 2017.
- Keynote speaker at Gresti 2017, Juan-les-Pins, September 2017.
- Invited speaker at Workshop on YouTube-8M Large-Scale Video Understanding, in conjunction with CVPR'17, July 2017.
- Invited speaker at Women in Computer Vision Workshop, in conjunction with CVPR'17, July 2017.
- Invited speaker at 1st Workshop on Target Re-Identification and Multi-Target Multi-Camera Tracking, in conjunction with CVPR'17, July 2017.
- Invited speaker at Chalearn Looking at People Workshop, in conjunction with CVPR'17, July 2017.
- Invited speaker at Frontiers of Video Technology, July 2017.
- Invited speaker at Korean Conference on Computer Vision, Seoul, June 2017.
- Keynote speaker at Swedish Symposium on Deep Learning, Stockholm, June 2017.
- Invited speaker at Russian Summit “Machines Can See”, Moscow, June 2017.
- Invited speaker at Large-scale Computer Vision Workshop in conjunction with NIPS'16, December 2016.
- Keynote speaker at IEEE International Conference on Image Processing, Phoenix, September 2016.
- Invited speaker at Robust Features Workshop in conjunction with CVPR'16, June 2016.
- Invited speaker at collège de France seminar (chair of Yann LeCun), Mars 2016.
- Invited speaker at the LIG (laboratoire d'informatique de Grenoble) keynote talks, February 2016.
- Invited speaker at the Scenes from Video Workshop, Santa Cruz, Chile, December 2015.
- Invited speaker at the Google Deep Video Workshop, Santa Cruz, USA, November 2015.
- Invited speaker at the Human Robot Interaction Workshop at UC Berkeley, November 2015.
- Invited speaker at workshop on pose recovery, action recognition, and cultural event recognition, in conjunction with CVPR'15, June 2015.
- Invited speaker at the ERC Workshop on Research Data Management and Sharing, September 2014.
- Keynote speaker at Annual Workshop of the Austrian Association for Pattern Recognition, IST Austria, May 2014.
- Keynote speaker at Netherlands Conference on Computer Vision, April 2014.



- Invited speaker at First French-German Mathematical Image Analysis Conference, Paris, January 2014.
- Keynote talk at The First International Workshop on Action Recognition with a Large Number of Classes, in conjunction with ICCV '13, Sydney, Australia, December 2013.
- ICCV area chair meeting workshop, Oxford University, August 2013.
- Keynote speaker at 14th International Workshop on Image and Audio Analysis for Multimedia Interactive Services (WIAMIS), Paris, July 2013.
- Invited speaker at Second international workshop on visual analysis and geo-localization of large-scale imagery in conjunction with CVPR'13, June 2013.
- CVPR area chair meeting workshop, USC, February 2013.
- Keynote speaker at GdR ISIS, Le Touquet, November 2012.
- First international workshop on visual analysis and geo-localization of large-scale imagery in conjunction with ECCV'12, Florence, October 2012.
- Keynote speaker at the International Symposium on Visual Computing, Crete, July 2012.
- Keynote speaker at ACM International Conference on Multimedia Retrieval (ICMR), Hong Kong, June 2012.
- Workshop on Large Scale Multimedia Search, Los Angeles, January 2012.
- NIPS satellite WiML Workshop, Granada, December 2011.
- Symposium on Applied Perception in Graphics and Visualization, Toulouse, August 2011.
- Frontiers in Computer Vision Workshop, MIT, August 2011.
- Keynote speaker at Compression et représentation des signaux audiovisuels (Coresa 2010), Lyon, October 2010.
- Oxford vision workshop, July 2010.
- ECCV area chair colloquium, Paris, June 2010.
- CVPR area chair meeting workshop, University of Maryland, February 2010.
- International Workshop on Recent Trends in Computer Vision, Kyoto, Japan, June 2009.
- International Workshop on Video, Barcelona, Spain, May 2009.
- Keynote speaker at the Conference on Machine Vision Applications, Yokohama, Japan, May 2009.
- Keynote speaker at BMVC'08, Leeds, UK, September 2008.
- ECCV area chair symposium, Paris, June 2008.
- International Workshop on Computer Vision, Venice, Italy, May 2008.
- 4th International Workshop on Object Categorization, in conjunction with ICCV'07, Rio de Janeiro, Brazil, October 2007.
- MIRU International Workshop on Computer Vision, Hiroshima, Japan, July 2007.

- 2nd Beyond Patches Workshop in conjunction with CVPR'07, June 2007.
- Annual Workshop of the Austrian Association for Pattern Recognition (OEAGM'07), Schloss Krumbach, Austria, May 2007.
- CVPR area chair meeting workshop, Pittsburgh, USA, March 2007.
- LIAMA's 10th Anniversary Workshop, Beijing, China, January 2007.
- International Workshop on Object Recognition, Syracuse, Italy, September 2006.
- TAIMA 2005, Hammamet, Tunisia, September 2005.
- Empirical Inference Symposium, Tuebingen, August 2005.
- ICCV Area Chair Meeting Workshop, Leuven, June 2005.
- MSRI workshop on Visual Recognition, Berkeley, USA, March 2005.
- CVPR area chair meeting workshop, Los Angeles, February 2005.
- International Workshop on Object Recognition, Taormina, Sicily, Italy, October 2004.
- PASCAL Workshop on Pattern Recognition and Machine Learning, Grenoble, May 2004.
- Cognitive Computer Vision Colloquium, Prague, January 2004.
- International Workshop on Object Recognition, Taormina, Sicily, Italy, September 2003.
- Workshop on Computational Vision, Rosenon, Sweden, July 2003.
- The Learning Workshop, Snowbird, Utah, April 2003.
- The 4th Sino-Franco Workshop on Web Technologies, Taipei, Taiwan, March 2003.
- Workshop at the area chair meeting, Lund, February 2002.
- Dagstuhl-Seminar on Content-Based Image and Video Retrieval, Dagstuhl, January 2002.
- Inria statistics seminar, Rennes, November 2001.
- GDR-GT10 Indexation Multimedia, Paris, France, May 2001.
- The Learning Workshop, Snowbird, Utah, April 2001.
- Beckman Institute vision workshop, Urbana-Champaign, February 2000.

## Tutorials and courses

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- Tutorial on action recognition at the Winter School in Computer Vision, Jerusalem, January 2017.
- Course on action recognition at Computational Vision Summer School, Freudenstadt, Germany, July 2015.
- Tutorial on image search and classification at the Inria Visual Recognition and Machine Learning Summer School, Paris, July 2013.
- Tutorial on modern features at ECCV 2012, Florence, October 2012.

- Tutorial on image search and classification at the Inria Visual Recognition and Machine Learning Summer School, Grenoble, July 2012.
- Tutorial on image search and classification at the ENS-Inria Visual Recognition and Machine Learning Summer School, Paris, July 2011.
- Lecture on local features and large scale search at the 3e cycle romand d’informatique, Geneva, Switzerland, February 2011.
- Tutorial on image features, search and classification at the Winter Research School at ENS Lyon, January 2011.
- Tutorial on image search and classification at the Inria Visual Recognition and Machine Learning Summer School, Grenoble, July 2010.
- Tutorial on images features and object recognition, Lotus Hill Summer School on Computer Vision, Ezhou, China, July 2008.
- Tutorial on local features and recognition, International Summer School on Computer Vision, Acitrezza, Sicily, Italy, July 2007.
- Tutorial on invariant local features, AERFAI Summer School on Action and Object Classification Techniques in Digital Images, Granada, Spain, June 2006.
- Course on local descriptor and recognition, MIT, Boston, USA, December 2005.
- Course on local features and recognition, Oulu University, May 2005.
- Short-course on local features, IEEE Conference on Computer Vision and Pattern Recognition, June 2003.
- Tutorial on recognition and image retrieval, Summer School Vision and Robotics, Toulouse, July 2002.
- Tutorial on recognition and image retrieval, Summer School Vision and Robotics, Grenoble, July 2000.

### **Invited presentations at universities and companies**

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- Seminar at Berkeley University, July 2017.
- Seminar at Toyota Research Institute, July 2017.
- Seminar at Google, Mountain View, July 2017.
- Seminar at DeepMind, London, June 2017.
- Speaker at Distinguished Seminar Series in Computing, Imperial College, London, June 2017.
- Seminar at MPI, Tübingen, May 2017.
- Seminar at “10 ans de l’ERC à Inria”, Paris, Mars 2017.
- Seminar at Google, Montain View, July 2016.
- Seminar at “Journées scientifiques Inria”, June 2016.

- Seminar at Karlsruhe Technology Institute, June 2016.
- Seminar at MPI, Tübingen, April 2016.
- Seminar at INSA Lyon, April 2016.
- Seminar at New York University, January 2016.
- Seminar at Berkeley University, November 2015.
- Seminar at Stanford University, June 2015.
- Seminar at Google, Mountain View, June 2015.
- Seminar at Facebook AI Research lab, New York, May 2015.
- Seminar at CMU, Pittsburgh, May 2015.
- Seminar at Oxford University, March 2015.
- Seminar at Gatsby Computational Neuroscience Unit, London, March 2015.
- Seminar at MPI, Tübingen, February 2015.
- Seminar at Univ. Edinburgh, July 2014.
- Seminar at MPI, Tübingen, April 2014.
- Seminar at WILLOW retreat, Bandol, June 2013.
- Seminar at UCF, Orlando, May 2013.
- Seminar at MPI, Tübingen, January 2013.
- Seminar at University of Berkeley, December 2012.
- Seminar at New York University, May 2012.
- Seminar at Google, Zürich, May 2012.
- Seminar at ETHZ, Zürich, May 2012.
- Seminar at MSR Cambridge, April 2012.
- Seminar at MPI, Tübingen, April 2012.
- Colloquium J. Morgenstern, Sophia-Antipolis, December 2011.
- Seminar at New York University, July 2010.
- Seminar at Centre de Mathématiques et de Leurs Applications, Ecole Normale Supérieure de Cachan, Paris, April 2010.
- Seminar at CMU, Pittsburgh, September 2009.
- Seminar at University of Texas at Austin, April 2009.
- Seminar at Oxford University, March 2009.
- Seminar at UCL, London, March 2009.

- Seminar at ETHZ, Zürich, February 2009.
- Seminar at Max Planck Institut Saarbrücken, Germany, September 2008.
- Seminar at TU München, Germany, July 2008.
- Seminar at LIAMA, Beijing, China, July 2008.
- Seminar at the Advanced Computer Vision Company, Vienna, Austria, May 2007.
- Seminar at ENS Ulm, Paris, France, October 2006.
- Seminar at Carnegie Mellon University, Pittsburg, August 2006.
- Seminar at Microsoft Research, Seattle, August 2006.
- Seminar at Xerox, Grenoble, June 2006.
- Seminar at ETH Zurich, April 2006.
- Seminar at UIUC, Champaign, February 2006.
- Seminar at ENS Ulm, Paris, France, October 2005.
- Seminar at University of Liege, Belgium, February 2005.
- Seminar at University of Illinois, Urbana-Champaign, January 2005.
- Seminar at Max Planck Institut Tuebingen, Germany, December 2004.
- Vision Seminar at Berkeley University, April 2004.
- Presentation at Toyota, Tokyo, Japan, May 2003.
- Vision Seminar at University of Illinois, Urbana-Champaign, October 2002.
- Vision Seminar at University of Illinois, Urbana-Champaign, October 2001.
- Vision Seminar at Berkeley University, USA, January 2000.
- Microsoft Research Labs, Redmond, Washington, March 1999.

# Publications

The two main journals of computer vision are the International Journal on Computer Vision (IJCV) and the IEEE Transactions on Pattern Analysis and Machine Intelligence (PAMI) with acceptance rates below 30%. The three main conferences are the IEEE International Conference on Computer Vision (ICCV), the IEEE Conference on Computer Vision and Pattern Recognition (CVPR) and the European Conference on Computer Vision (ECCV). These three conferences are very selective—in general less than 25% of the articles submitted are accepted—and their proceedings play a role which is as important as international journals.

According to Google Scholar my h-index is 97 and the total number of citations for my publications is more than 75 000. Most of my papers are available on the THOTH publication server at <http://thoth.inrialpes.fr/pubs>.

## Journal articles

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1. B. Ham, M. Cho, C. Schmid and J. Ponce. Proposal flow: Semantic correspondences from object proposals. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, to appear.
2. G. Varol, I. Laptev, C. Schmid. Long-term convolutions for action recognition. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, to appear.
3. M. Paulin, J. Mairal, M. Douze, Z. Harchaoui, F. Perronnin and C. Schmid. Convolutional patch representations for image retrieval: an unsupervised approach. *International Journal of Computer Vision*, 121(1):149-168, 2017
4. G. Sharma, F. Jurie and C. Schmid. Expanded parts model for semantic description of humans in still images. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 39(1):87-101, 2017.
5. G. Cinbis, J. Verbeek and C. Schmid. Weakly supervised object localization with multi-fold multiple instance learning. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 39(1):189-203, 2017.
6. J. Revaud, P. Weinzaepfel, Z. Harchaoui and C. Schmid. DeepMatching: Hierarchical deformable dense matching. *International Journal of Computer Vision*, 120(1):300-323, 2016.
7. V. Kalogeiton, V. Ferrari and C. Schmid. Analysing domain shift factors between videos and images for object detection. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 38(11):2327-2334, 2016.
8. M. Douze, J. Revaud, J. Verbeek, H. Jegou, C. Schmid. Circulant temporal encoding for video retrieval and temporal alignment. *International Journal of Computer Vision*, 119(3):291-306, 2016.
9. Z. Akata, F. Perronnin, Z. Harchaoui and C. Schmid. Label-embedding for image classification. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 38(7):1425-1438, 2016.
10. G. Cinbis, J. Verbeek and C. Schmid. Approximate Fisher kernels of non-iid image models for image categorization. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 38(6):1084-1098, 2016.
11. H. Wang, D. Oneata, J. Verbeek and C. Schmid. A robust and efficient video representation for action recognition. *International Journal of Computer Vision*, 119(3):219-238, 2016.

12. A. Gaidon, Z. Harchaoui and C. Schmid. Activity representation with motion hierarchies. *International Journal of Computer Vision*, 107(3):219-238, 2014.
13. Z. Akata, F. Perronnin, Z. Harchaoui and C. Schmid. Good practice in large-scale learning for image classification. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 36(3):507-520, 2014.
14. H. Wang, A. Kläser, C. Schmid and C.-L. Liu. Dense trajectories and motion boundary descriptors for action recognition. *International Journal of Computer Vision*, 103(1):60-79, 2013.
15. A. Gaidon, Z. Harchaoui and C. Schmid. Temporal localization of actions with actoms. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 35(11):2782-2795, 2013.
16. A. Prest, V. Ferrari and C. Schmid. Explicit modeling of human-object interactions in realistic videos. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 35(4):835-848, 2013.
17. A. Prest, C. Schmid and V. Ferrari. Weakly supervised learning of interactions between humans and objects. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 34(3):601-614, 2012.
18. H. Jegou, F. Perronnin, M. Douze, J. Sanchez, P. Perez and C. Schmid. Aggregating local image descriptors into compact codes. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 34(9):1704 - 1716, 2012.
19. M. Guillaumin, T. Mensink, J. Verbeek, C. Schmid. Face recognition from caption-based supervision. *International Journal of Computer Vision*, 96 (1):64-82, 2012.
20. M. Marszalek and C. Schmid. Accurate Object Recognition with Shape Masks. *International Journal of Computer Vision*, 97(2):191-209, 2012.
21. H. Jegou, M. Douze and C. Schmid. Product quantization for nearest neighbor search. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 33(1):117–128, 2011.
22. H. Jegou, M. Douze and C. Schmid. Improving bag-of-features for large scale image search. *International Journal of Computer Vision*, 87(3):316–336, 2010.
23. M. Douze, H. Jegou and C. Schmid. An image-based approach to video copy detection with spatiotemporal post-filtering. *IEEE Transactions on Multimedia*, 12(4):257–266, 2010.
24. V. Ferrari, F. Jurie and C. Schmid. From images to shape models for object detection. *International Journal of Computer Vision*, 87(3):284–303, 2010.
25. H. Jegou, C. Schmid, H. Harzallah and J. Verbeek. Accurate image search using the contextual dissimilarity measure. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 32(1):2-11, 2010.
26. M. Heikkila, M. Pietikainen and C. Schmid. Description of interest regions with local binary patterns. *Pattern Recognition*, 42(3):425-436, 2009.
27. J. van de Weijer, C. Schmid, J. Verbeek and D. Larlus. Learning color names for real world applications. *IEEE Transactions on Image Processing*, 18(7):1512-1523, 2009.
28. P. Carbonetto, G. Dorko, C. Schmid, H. Kueck and N. de Freitas. Learning to recognize objects with little supervision. *International Journal of Computer Vision*, 77(1):219-238, 2008.

29. V. Ferrari, L. Fevrier, F. Jurie and C. Schmid. Groups of adjacent contour segments for object detection. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 30(1):36-51, 2008.
30. C. Bouveyron, S. Girard and C. Schmid. High-dimensional data clustering. *Computational Statistics and Data Analysis*, 52(1):502-519, 2007.
31. J. Zhang, M. Marszalek, S. Lazebnik and C. Schmid. Local features and kernels for classification of texture and object categories: a comprehensive study. *International Journal of Computer Vision*, 73(2):213-238, 2007.
32. F. Rothganger, S. Lazebnik, C. Schmid and J. Ponce. Segmenting, modeling and matching video clips containing multiple moving objects. In *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 29(3):477-491, 2007.
33. C. Bouveyron, S. Girard and C. Schmid. High-dimensional discriminant analysis. *Communications in Statistics: Theory and Methods*, vol. 36(14):2607-2623, 2007.
34. F. Rothganger, S. Lazebnik, C. Schmid, and J. Ponce. Object modeling and recognition using local affine-invariant image descriptors and multi-view spatial constraints. *International Journal of Computer Vision*, 66(3):231-260, 2006.
35. K. Mikolajczyk, T. Tuytelaars, C. Schmid, A. Zisserman, J. Matas, F. Schaffalitzky, T. Kadir and L. Van Gool. A comparison of affine region detectors. *International Journal of Computer Vision*, 65(1/2):43-72, 2005.
36. S. Lazebnik, C. Schmid and J. Ponce. A sparse texture representation using local affine regions. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 27(8):1265-1278, 2005.
37. K. Mikolajczyk and C. Schmid. A performance evaluation of local descriptors. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 27(10):1615-1630, 2005.
38. K. Mikolajczyk and C. Schmid. Scale & affine invariant interest point detectors. *International Journal of Computer Vision*, 60(1):63-86, 2004.
39. Y. Dufournaud, C. Schmid and R. Horaud. Image matching with scale adjustment. *Computer Vision and Image Understanding*, 93(2):175-194, 2004.
40. C. Schmid. Weakly supervised learning of visual models and its application to content-based retrieval. *International Journal of Computer Vision*, 56(1):7-16, 2004.
41. R. Choudhury, C. Schmid and K. Mikolajczyk. Face detection and tracking in a video by propagating detection probabilities. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 25(10):1215-1228, 2003.
42. C. Schmid and A. Zisserman. The geometry and matching of lines and curves over multiple views. *International Journal of Computer Vision*, 40(3):199-234, 2000.
43. C. Schmid, R. Mohr and C. Bauckhage. Evaluation of interest point detectors. *International Journal of Computer Vision*, 37(2):151-172, 2000.
44. C. Schmid and R. Mohr. Local greyvalue invariants for image retrieval. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 19(5):530-534, 1997.
45. C. Schmid and R. Mohr. Mise en correspondance par invariants locaux. *Traitement du Signal*, 13(6):591-606, 1996.



46. J. Crowley, P. Bobet and C. Schmid. Auto-calibration by direct observation of objects. *Journal of Image and Vision Computing*, 11(2):67–81, 1993.

## Edited books

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1. J. Ponce, M. Hebert, C. Schmid, and A. Zisserman (editors). *Towards Category-Level Object Recognition*. Springer Verlag, LNCS 4170, 2006.

## Book chapters

---

1. R. Benavente, J. Van De Weijer, M. Vanrell, C. Schmid, R. Baldrich, J. Verbeek, D. Larlus. Color Names. In *Color in Computer Vision*, T. Gevers, A. Gijsenij, J. van de Weijer, J.-M. Geusebroek, Wiley, chapter 17, 2012.
2. J. Van De Weijer, T. Gevers, C. Schmid and A. Gijsenij. Color Ratios. In *Color in Computer Vision*, T. Gevers, A. Gijsenij, J. van de Weijer, J.-M. Geusebroek, Wiley, chapter 5, 2012.
3. H. Jegou, M. Douze and C. Schmid. Recent advances in image search. In *Emerging Trends and Challenges in Visual Computing*, F. Nielsen editor, LNCS, vol. 5416, pp. 305-326, 2009.
4. S. Lazebnik, C. Schmid and J. Ponce. Spatial pyramid matching. In *Object Categorization: Computer and Human Vision Perspectives*, S. Dickinson, A. Leonardis, B. Schiele, and M. Tarr editors, Cambridge University Press, chapter 21, pp. 401-415, 2009.
5. J. Ponce, T. Berg, M. Everingham, D. Forsyth, M. Hebert, S. Lazebnik, M. Marszalek, C. Schmid, B. Russell, A. Torralba, C. Williams, J. Zhang, and A. Zisserman. Dataset issues in object recognition. In *Toward Category-Level Object Recognition*, LNCS 4170, pp. 29-48, Springer Verlag, 2006.
6. S. Lazebnik, C. Schmid and J. Ponce. A discriminative framework for texture and object recognition using local image features. In *Toward Category-Level Object Recognition*, LNCS 4170, pp. 423-442, Springer Verlag, 2006.
7. F. Rothganger, S. Lazebnik, C. Schmid and J. Ponce. 3D object modeling and recognition from photographs and image sequences. In *Toward Category-Level Object Recognition*, LNCS 4170, pp. 105-126, Springer Verlag, 2006.
8. P. Carbonetto, G. Dorko, C. Schmid, H. Kueck and N. de Freitas. A semi-supervised learning approach to object recognition with spatial integration of local features and segmentation cues. In *Toward Category-Level Object Recognition*, LNCS 4170, pp. 277-300, Springer Verlag, 2006.
9. M. Everingham, A. Zisserman, C. Williams, L. Van Gool, M. Allan, C. Bishop, O. Chapelle, N. Dalal, T. Deselaers, G. Dorkó, S. Duffner, J. Eichhorn, J. Farquhar, M. Fritz, C. Garcia, T. Griffiths, F. Jurie, T. Keysers, M. Koskela, J. Laaksonen, D. Larlus, B. Leibe, H. Meng, H. Ney, B. Schiele, **C. Schmid**, E. Seeman, J. Shawe-Taylor, A. Storkey, S. Szedmak, B. Triggs, I. Ulusoy, V. Viitaniemi and J. Zhang. The 2005 PASCAL Visual Object Classes Challenge. In *Selected Proceedings of the first PASCAL Challenges Workshop*, F. d’Alche-Buc, I. Dagan and J. Quinero editors, LNAI 3944, pp. 117-176, Springer Verlag, 2006.
10. C. Bouveyron, S. Girard and C. Schmid. Class-specific subspace discriminant analysis for high-dimensional data. In *Subspace, Latent Structure and Feature Selection*, LNCS 3940, pp. 139-150, Springer-Verlag, 2006.

11. C. Schmid, G. Dorko, S. Lazebnik, K. Mikolajczyk and J. Ponce. Pattern recognition with local invariant features. In *Handbook of Pattern Recognition and Computer Vision, 3rd edition*, C.H. Chen and P.S.P Wang editors, World Scientific, 2005.
12. P. Gros and C. Schmid. La reconnaissance des formes dans les images. In *Perception visuelle par imagerie vidéo*, M. Dhome editor, Hermes Science, Lavoisier, 2003.
13. C. Schmid, A. Zisserman and R. Mohr. Combining geometric and photometric information. In *Shape, Contour and Grouping in Computer Vision*, D. Forsyth, J. Mundy, V. di Gesù and R. Cipolla editors, Springer, 1998.
14. C. Schmid, P. Bobet, B. Lamiroy and R. Mohr. An image oriented CAD approach. In *Object Representations in Computer Vision*, J. Ponce, A. Zisserman and M. Hebert editors, Springer, 1996.

### Refereed international conferences

---

1. V. Kalogeiton, P. Weinzaepfel, V. Ferrari and C. Schmid. Action tubelet detector for spatio-temporal action localization. In *International Conference on Computer Vision*, 2017.
2. V. Kalogeiton, P. Weinzaepfel, V. Ferrari and C. Schmid. Joint learning of object and action detectors. In *International Conference on Computer Vision*, 2017.
3. M. Pedersoli, T. Lucas, C. Schmid and J. Verbeek. Areas of attention for image captioning. In *International Conference on Computer Vision*, 2017.
4. J. Peyre, I. Laptev, C. Schmid and J. Sivic. Weakly-supervised learning of visual relations. In *International Conference on Computer Vision*, 2017.
5. K. Han, R. Rezende, B. Ham, K.-Y. Wong, M. Cho, C. Schmid and J. Ponce. SCNet: Learning semantic correspondence. In *International Conference on Computer Vision*, 2017.
6. K. Shmelkov, C. Schmid and K. Alahari. Incremental learning of object detectors without catastrophic forgetting. In *International Conference on Computer Vision*, 2017.
7. P. Tokmakov, K. Alahari and C. Schmid. Learning video object segmentation with visual memory. In *International Conference on Computer Vision*, 2017.
8. N. Dvornik, K. Shmelkov, J. Mairal and C. Schmid. BlitzNet: A real-time deep network for scene understanding. In *International Conference on Computer Vision*, 2017.
9. P. Tokmakov, K. Alahari and C. Schmid. Learning motion patterns in videos. In *IEEE Conference on Computer Vision and Pattern Recognition*, 2017.
10. G. Varol, J. Romero, X. Martin, N. Mahmood, M. Black, I. Laptev and C. Schmid. Learning from synthetic humans. In *IEEE Conference on Computer Vision and Pattern Recognition*, 2017.
11. G. Rogez, P. Weinzaepfel and C. Schmid. LCR-Net: Localization-Classification-Regression for human pose. In *IEEE Conference on Computer Vision and Pattern Recognition*, 2017.
12. G. Rogez and C. Schmid. MoCap-guided data augmentation for 3D pose estimation in the wild. In *Advances in Neural Information Processing Systems*, 2016.

13. P. Tokmakov, K. Alahari, C. Schmid. Weakly-supervised semantic segmentation using motion cues. In *European Conference on Computer Vision*, 2016.
14. X. Peng and C. Schmid. Multi-region two-stream R-CNN for action detection. In *European Conference on Computer Vision*, 2016.
15. B. Ham, M. Cho, C. Schmid and J. Ponce. Proposal Flow. In *IEEE Conference on Computer Vision and Pattern Recognition*, 2016.
16. G. Cheron, I. Laptev and C. Schmid. P-CNN: Pose-based CNN features for action recognition. In *International Conference on Computer Vision*, 2015.
17. P. Weinzaepfel, Z. Harchaoui and C. Schmid. Learning to track for spatio-temporal action localization. In *International Conference on Computer Vision*, 2015.
18. Y. Hua, K. Alahari and C. Schmid. Online object tracking with proposal selection. In *International Conference on Computer Vision*, 2015.
19. M. Paulin, M. Douze, Z. Harchaoui, J. Mairal, F. Perronnin and C. Schmid. Local convolutional features with unsupervised training for image retrieval. In *International Conference on Computer Vision*, 2015.
20. P. Bojanowski, R. Lajugie, E. Grave, F. Bach, I. Laptev, J. Ponce and C. Schmid. Weakly-supervised alignment of video with text. In *International Conference on Computer Vision*, 2015.
21. S. Kwak, M. Cho, I. Laptev, J. Ponce and C. Schmid. Unsupervised object discovery and tracking in video collections. In *International Conference on Computer Vision*, 2015.
22. J. Revaud, P. Weinzaepfel, Z. Harchaoui and C. Schmid. EpicFlow: Edge-preserving interpolation of correspondences for optical flow. In *IEEE Conference on Computer Vision and Pattern Recognition*, 2015.
23. M. Cho, S. Kwak, C. Schmid and J. Ponce. Unsupervised object discovery and localization in the wild: Part-based matching with bottom-up region proposals. In *IEEE Conference on Computer Vision and Pattern Recognition*, 2015.
24. P. Weinzaepfel, J. Revaud, Z. Harchaoui and C. Schmid. Learning to Detect Motion Boundaries. In *IEEE Conference on Computer Vision and Pattern Recognition*, 2015.
25. J. Mairal, P. Koniusz, Z. Harchaoui and C. Schmid. Convolutional kernel networks. In *Advances in Neural Information Processing Systems*, 2014.
26. P. Bojanowski, R. Lajugie, F. Bach, I. Laptev, J. Ponce, C. Schmid and J. Sivic. Weakly supervised action labeling in videos under ordering constraints. In *European Conference on Computer Vision*, 2014.
27. D. Potapov, M. Douze, Z. Harchaoui and C. Schmid. Category-specific video summarization. In *European Conference on Computer Vision*, 2014.
28. Y. Hua, K. Alahari and C. Schmid. Occlusion and motion reasoning for long-term tracking. In *European Conference on Computer Vision*, 2014.
29. D. Oneata, J. Revaud, J. Verbeek and C. Schmid. Spatio-temporal object detection proposals. In *European Conference on Computer Vision*, 2014.

30. D. Oneata, J. Verbeek and C. Schmid. Efficient action localization with approximately normalized Fisher vectors. In *IEEE Conference on Computer Vision and Pattern Recognition*, 2014.
31. A. Cherian, J. Mairal, K. Alahari and C. Schmid. Mixing body-part sequences for human pose estimation. In *IEEE Conference on Computer Vision and Pattern Recognition*, 2014.
32. G. Cinbis, J. Verbeek and C. Schmid. Multi-fold MIL training for weakly supervised object localization. In *IEEE Conference on Computer Vision and Pattern Recognition*, 2014.
33. M. Paulin, J. Revaud, Z. Harchaoui, F. Perronnin and C. Schmid. Transformation pursuit for image classification. In *IEEE Conference on Computer Vision and Pattern Recognition*, 2014.
34. H. Wang and C. Schmid. Action recognition with improved trajectories. In *International Conference on Computer Vision*, 2013.
35. D. Oneata, J. Verbeek and C. Schmid. Action and event recognition with Fisher vectors on a compact feature set. In *International Conference on Computer Vision*, 2013.
36. G. Cinbis, J. Verbeek and C. Schmid. Segmentation driven object detection with Fisher vectors. In *International Conference on Computer Vision*, 2013.
37. S. Zuffi, J. Romero, C. Schmid, M. Black. Estimating human pose with flowing puppets. In *International Conference on Computer Vision*, 2013.
38. H. Jhuang, J. Gall, S. Zuffi, C. Schmid, M. Black. Towards understanding action recognition. In *International Conference on Computer Vision*, 2013.
39. P. Weinzaepfel, J. Revaud, Z. Harchaoui and C. Schmid. DeepFlow: Large displacement optical flow with deep matching. In *International Conference on Computer Vision*, 2013.
40. P. Bojanowski, F. Bach, I. Laptev, J. Ponce, C. Schmid and J. Sivic. Finding actors and actions in movies. In *International Conference on Computer Vision*, 2013.
41. M. Douze, J. Revaud, C. Schmid and H. Jegou. Stable hyper-pooling and query expansion for event detection. In *International Conference on Computer Vision*, 2013.
42. J. Revaud, M. Douze, C. Schmid, H. Jegou. Event retrieval in large video collections with circulant temporal encoding. In *IEEE Conference on Computer Vision and Pattern Recognition*, 2013.
43. Z. Akata, F. Perronnin, Z. Harchaoui and C. Schmid. Label-embedding for attribute-based classification. In *IEEE Conference on Computer Vision and Pattern Recognition*, 2013.
44. G. Sharma, F. Jurie and C. Schmid. Expanded parts model for human attribute and action recognition in still images. In *IEEE Conference on Computer Vision and Pattern Recognition*, 2013.
45. J. Revaud, M. Douze and C. Schmid. Correlation-based burstiness for logo retrieval. In *ACM International Conference on Multimedia*, 2012.
46. F. Perronnin, Z. Akata and Z. Harchaoui and C. Schmid. Towards good practice in large-scale learning for image classification. In *IEEE Conference on Computer Vision and Pattern Recognition*, 2012.

47. A. Prest, C. Leistner, J. Civera, C. Schmid and V. Ferrari. Learning object class detectors from weakly annotated video. In *IEEE Conference on Computer Vision and Pattern Recognition*, 2012.
48. G. Cinbis, J. Verbeek, C. Schmid. Image categorization using Fisher kernels of non-iid image models. In *IEEE Conference on Computer Vision and Pattern Recognition*, 2012.
49. G. Sharma, F. Jurie and C. Schmid. Discriminative spatial saliency for image classification. In *IEEE Conference on Computer Vision and Pattern Recognition*, 2012.
50. R. Cinbis, J. Verbeek and C. Schmid. Unsupervised metric learning for face identification in TV Video. In *International Conference on Computer Vision*, 2011.
51. H. Wang, A. Kläser, C. Schmid and L. Cheng-Lin. Action recognition by dense trajectories. In *IEEE Conference on Computer Vision and Pattern Recognition*, 2011.
52. A. Gaidon, Z. Harchaoui and C. Schmid. Actom sequence models for efficient action detection. In *IEEE Conference on Computer Vision and Pattern Recognition*, 2011.
53. M. Douze, A. Ramisa and C. Schmid. Combining attributes and Fisher vectors for efficient image retrieval. In *IEEE Conference on Computer Vision and Pattern Recognition*, 2011.
54. M. Guillaumin and J. Verbeek and C. Schmid. Multiple instance metric learning from automatically labeled bags of faces. In *European Conference on Computer Vision*, 2010.
55. M. Douze, H. Jegou, C. Schmid and P. Perez. Compact video description with precise temporal alignment. In *European Conference on Computer Vision*, 2010.
56. J. Liebelt and C. Schmid. Multi-view object class detection with a 3D geometric model. In *IEEE Conference on Computer Vision and Pattern Recognition*, 2010.
57. M. Guillaumin, J. Verbeek and C. Schmid. Multimodal semi-supervised learning for image classification. In *IEEE Conference on Computer Vision and Pattern Recognition*, 2010.
58. H. Jegou, M. Douze, C. Schmid and P. Perez. Aggregating local descriptors into a compact image representation. In *IEEE Conference on Computer Vision and Pattern Recognition*, 2010.
59. M. Guillaumin, T. Mensink, J. Verbeek and C. Schmid. TagProp: Discriminative metric learning in nearest neighbor models for image auto-annotation. In *International Conference on Computer Vision*, 2009.
60. M. Guillaumin, J. Verbeek and C. Schmid. Is that you? Metric learning approaches for face identification. In *International Conference on Computer Vision*, 2009.
61. H. Harzallah, F. Jurie and C. Schmid. Combining efficient object localization and image classification. In *International Conference on Computer Vision*, 2009.
62. H. Jegou, M Douze and C. Schmid. Packing bag-of-features. In *International Conference on Computer Vision*, 2009.
63. M. Douze, H. Jegou, H. Sandhawalia, L. Amsaleg and C. Schmid. Evaluation of GIST descriptors for web-scale image search. In *ACM International Conference on Image and Video Retrieval*, 2009.
64. H. Jegou, M. Douze and C. Schmid. On the burstiness of visual elements. In *IEEE Conference on Computer Vision and Pattern Recognition*, 2009.

65. T. Jiang, F. Jurie and C. Schmid. Learning shape prior models for object matching. In *IEEE Conference on Computer Vision and Pattern Recognition*, 2009.
66. M. Marszałek, I. Laptev and C. Schmid. Actions in context. In *IEEE Conference on Computer Vision and Pattern Recognition*, 2009.
67. H. Jegou, M. Douze and C. Schmid. Hamming embedding and weak geometric consistency for large scale image search. In *European Conference on Computer Vision*, 2008.
68. M. Marszalek and C. Schmid. Constructing category hierarchies for visual recognition. In *European Conference on Computer Vision*, 2008.
69. C. Pantofaru, C. Schmid and M. Hebert. Object recognition by integrating multiple image segmentations. In *European Conference on Computer Vision*, 2008.
70. I. Laptev, M. Marszalek, C. Schmid and B. Rozenfeld. Learning realistic human actions from movies. In *IEEE Conference on Computer Vision and Pattern Recognition*, 2008.
71. M. Guillaumin, T. Mensink, J. Verbeek and C. Schmid. Automatic face naming with caption-based supervision. In *IEEE Conference on Computer Vision and Pattern Recognition*, 2008.
72. J. Liebelt, C. Schmid and K. Schertler. Viewpoint-independent object class detection using 3D feature maps. In *IEEE Conference on Computer Vision and Pattern Recognition*, 2008. **Best poster award, honorable mention.**
73. H. Jegou, L. Amsaleg, C. Schmid and Patrick Gros. Query-adaptative locality sensitive hashing. In *IEEE International Conference on Acoustics, Speech, and Signal Processing*, 2008.
74. T. Tuytelaars and C. Schmid. Vector quantizing feature space with a regular lattice. In *IEEE International Conference on Computer Vision*, 2007.
75. J. van de Weijer, C. Schmid and J.J. Verbeek. Using high-level visual information for color constancy. In *IEEE International Conference on Computer Vision*, 2007.
76. H. Jegou, H. Harzallah and C. Schmid. A contextual dissimilarity measure for accurate and efficient image search. In *IEEE Conference on Computer Vision and Pattern Recognition*, 2007.
77. V. Ferrari, F. Jurie and C. Schmid. Accurate object detection with deformable shape models learnt from images. In *IEEE Conference on Computer Vision and Pattern Recognition*, 2007.
78. M. Marszalek and C. Schmid. Accurate object localization with shape masks. In *IEEE Conference on Computer Vision and Pattern Recognition*, 2007.
79. A. Kushal, C. Schmid and J. Ponce. Flexible object models for category-level 3D object recognition. In *IEEE Conference on Computer Vision and Pattern Recognition*, 2007.
80. J. van de Weijer, C. Schmid and J. Verbeek. Learning color names from real-world images. In *IEEE Conference on Computer Vision and Pattern Recognition*, 2007.
81. M. Marszalek and C. Schmid. Semantic hierarchies for visual object recognition. In *IEEE Conference on Computer Vision and Pattern Recognition*, 2007.
82. J. van de Weijer and C. Schmid. Applying color names to image description. In *IEEE International Conference on Image Processing*, 2007.

83. M. Marszalek and C. Schmid. Spatial weighting for bag-of-features. In *IEEE Conference on Computer Vision and Pattern Recognition*, 2006.
84. S. Lazebnik, C. Schmid and J. Ponce. Beyond bags of features: spatial pyramid matching for recognizing natural scene categories. In *IEEE Conference on Computer Vision and Pattern Recognition*, 2006.
85. J. van de Weijer and C. Schmid. Blur robust and color constant image description. In *IEEE International Conference on Image Processing*, 2006.
86. J. van de Weijer and C. Schmid. Coloring local feature extraction. In *European Conference on Computer Vision*, vol. 2, pages 334–348, 2006.
87. G. Dorko and C. Schmid. Maximally stable local description for scale selection. In *European Conference on Computer Vision*, 2006.
88. N. Dalal, B. Triggs and C. Schmid. Human detection using oriented histograms of flow and appearance. In *European Conference on Computer Vision*, 2006.
89. C. Bouveyron, S. Girard and C. Schmid. High dimensional data clustering. In *17th International Conference on Computational Statistics*, pages 812–820, 2006.
90. S. Lazebnik, C. Schmid and J. Ponce. A maximum entropy framework for part-based texture and object recognition. In *IEEE International Conference on Computer Vision*, 2005.
91. C. Bouveyron, S. Girard and C. Schmid. High dimensional discriminant analysis. In *International Symposium on Applied Stochastic Models and Data Analysis*, 2005.
92. J. Blanchet, F. Forbes and C. Schmid. Markov random fields for recognizing textures modeled by feature vectors. In *International Symposium on Applied Stochastic Models and Data Analysis*, 2005.
93. F. Jurie and C. Schmid. Scale-invariant shape features for recognition of object categories. In *IEEE Conference on Computer Vision and Pattern Recognition*, vol. 2, pages 90-96, 2004.
94. F. Rothganger, S. Lazebnik, C. Schmid and J. Ponce. Segmenting, modeling and matching video clips containing multiple moving objects. In *IEEE Conference on Computer Vision and Pattern Recognition*, vol. 2, pages 914-921, 2004.
95. K. Mikolajczk, C. Schmid and A. Zisserman. Human detection based on a probabilistic assembly of robust part detectors. In *European Conference on Computer Vision*, vol. 1, pages 69-82, 2004.
96. G. Dorko and C. Schmid. Selection of scale-invariant parts for object class recognition. In *International Conference on Computer Vision*, vol. 1, pages 634-640, 2003.
97. S. Lazebnik, C. Schmid and J. Ponce. Affine-invariant local descriptors and neighborhood statistics for texture recognition. In *IEEE International Conference on Computer Vision*, vol. 1, pages 649-655, 2003.
98. K. Mikolajczk and C. Schmid. A performance evaluation of local descriptors. In *IEEE Conference on Computer Vision and Pattern Recognition*, vol. 2, pages 257–263, 2003.
99. S. Lazebnik, C. Schmid and J. Ponce. Sparse texture representation using affine-invariant neighborhoods. In *IEEE Conference on Computer Vision and Pattern Recognition*, vol. 2, pages 319-324, 2003.

100. F. Rothganger, S. Lazebnik, C. Schmid and J. Ponce. 3D object modeling and recognition using affine-invariant patches and multi-view spatial constraints. In *IEEE Conference on Computer Vision and Pattern Recognition*, vol. 2, pages 272-277, 2003.
101. K. Mikolajczk and C. Schmid. An affine invariant interest point detector. In *European Conference on Computer Vision*, vol. 1, pages 128-142, 2002.
102. R. Ronfard, C. Schmid and B. Triggs. Learning to parse pictures of people. In *European Conference on Computer Vision*, vol. 4, pages 700-714, 2002.
103. S. Lazebnik, A. Sethi, C. Schmid, D. Kriegman, J. Ponce and M. Hebert. On pencils of tangent planes and the recognition of smooth 3D shapes from silhouettes. In *European Conference on Computer Vision*, vol. 3, pages 651-665, 2002.
104. C. Schmid. Constructing models for content-based image retrieval. In *IEEE Conference on Computer Vision and Pattern Recognition*, vol. 2, pages 39-45, 2001.
105. K. Mikolajczk, R. Choudhury and C. Schmid. Face detection in a video sequence - a temporal approach. In *IEEE Conference on Computer Vision and Pattern Recognition*, vol. 2, pages 96-101, 2001.
106. K. Mikolajczyk and C. Schmid. Indexing based on scale invariant interest points. In *IEEE International Conference on Computer Vision*, vol. 1, pages 525-531, 2001.
107. V. Vogelhuber and C. Schmid. Face detection based on generic local descriptors and spatial constraints. In *International Conference on Pattern Recognition*, vol. 1, pages 1084-1087, 2000.
108. Y. Dufournaud, C. Schmid and R. Horaud. Matching images with different resolutions. In *IEEE Conference on Computer Vision and Pattern Recognition*, vol. 1, pages 612-618, 2000.
109. C. Baillard, C. Schmid, A. Zisserman and A. Fitzgibbon. Automatic line matching and 3D reconstruction of buildings from multiple views. In *ISPRS Conference on Automatic Extraction of GIS Objects from Digital Imagery*, IAPRS vol. 32, Part 3-2W5, pages 69-80, 1999. **Best paper award.**
110. C. Schmid. A structured probabilistic model for recognition. In *IEEE Conference on Computer Vision and Pattern Recognition*, vol. 2, pages 485-490, 1999.
111. C. Schmid and A. Zisserman. The geometry and matching of curves in multiple views. In *European Conference on Computer Vision*, vol. 1, pages 394-409, 1998.
112. C. Schmid, R. Mohr and C. Bauckhage. Comparing and evaluating interest points. In *IEEE International Conference on Computer Vision*, pages 230-235, 1998.
113. R. Mohr, S. Picard and C. Schmid. Bayesian decision versus voting for image retrieval. In *International Conference on Computer Analysis of Images and Patterns*, pages 376-383, 1997.
114. C. Schmid and A. Zisserman. Automatic line matching across views. In *IEEE Conference on Computer Vision and Pattern Recognition*, pages 666-671, 1997.
115. C. Schmid and R. Mohr. Combining greyvalue invariants with local constraints for object recognition. In *IEEE Conference on Computer Vision and Pattern Recognition*, pages 872-877, 1996.
116. C. Schmid and R. Mohr. Image retrieval using local characterization. In *IEEE International Conference on Image Processing*, vol. 2, pages 781-784, 1996.



117. P. Bobet and C. Schmid. Obstacle detection analysis. In *IEEE Conference on Computer Vision and Pattern Recognition*, pages 796-799, 1994.
118. J. Crowley, P. Bobet and C. Schmid. Dynamic calibration of an active stereo head. In *IEEE International Conference on Computer Vision*, pages 734-739, 1993.
119. J. Crowley, P. Bobet and C. Schmid. Maintaining stereo calibration by tracking image points. In *IEEE Conference on Computer Vision and Pattern Recognition*, pages 483-488, 1993.
120. J. Crowley, P. Bobet and C. Schmid. Auto-calibration of a stereo head to object centered reference frames. In *International Conference on Intelligent Autonomous Systems*, 1993.

## Refereed national conferences

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1. N. Chesneau, G. Rogez, K. Alahari and C. Schmid. Detecting parts for action localization. In *British Machine Vision Conference*, 2017.
2. M. Paulin, J. Revaud, Z. Harchaoui, F. Perronnin and C. Schmid. Selection itrative de transformations pour la classification d'images. In *Congrès de Reconnaissance des Formes et Intelligence Artificielle*, 2014.
3. A. Gaidon, Z. Harchaoui and C. Schmid. Recognizing activities with cluster-trees of tracklets. In *British Machine Vision Conference*, 2012.
4. A. Gaidon, Z. Harchaoui and C. Schmid. A time series kernel for action recognition. In *British Machine Vision Conference*, 2011.
5. H. Jegou, M. Douze and C. Schmid. Représentation compacte des sacs de mots pour l'indexation d'images. In *Congrès de Reconnaissance des Formes et Intelligence Artificielle*, 2010.
6. M. Guillaumin, T. Mensink, J. Verbeek and C. Schmid. Apprentissage de distance pour l'annotation d'images par plus proches voisins. In *Congrès de Reconnaissance des Formes et Intelligence Artificielle*, 2010.
7. A. Gaidon, M. Marszałek and C. Schmid. Mining visual actions from movies. In *British Machine Vision Conference*, 2009.
8. H. Wang, M. M. Ullah, A. Kläser, I. Laptev and C. Schmid. Evaluation of local spatio-temporal features for action recognition. In *British Machine Vision Conference*, 2009.
9. A. Kläser, M. Marszalek and C. Schmid. A spatio-temporal descriptor based on 3D-gradients. In *British Machine Vision Conference*, 2008.
10. C. Bouveyron, J. Kannala, C. Schmid and S. Girard. Object localization by subspace clustering of local descriptors. In *5th Indian Conference on Computer Vision, Graphics and Image Processing*, 2006. **Best paper award, honorable mention.**
11. M. Heikkilä, M. Pietikäinen and C. Schmid. Description of interest regions with center-symmetric local binary patterns. In *5th Indian Conference on Computer Vision, Graphics and Image Processing*, 2006.
12. J. Blanchet, F. Forbes and C. Schmid. Markov random fields for textures recognition with local invariant regions and their geometric relationships. In *British Machine Vision Conference*, 2005.

13. J. Blanchet, F. Forbes and C. Schmid. Modèles markoviens pour l'organisation spatiale de descripteurs d'images. In *Conférence francophone sur l'apprentissage automatique*, 2005.
14. S. Lazebnik, C. Schmid and J. Ponce. Semi-local affine parts for object recognition. In *British Machine Vision Conference*, vol. 2, pages 959-968, 2004.
15. K. Mikolajczk, A. Zisserman and C. Schmid. Shape recognition with edge-based features. In *British Machine Vision Conference*, vol. 2, pages 779-788, 2003.
16. C. Schmid. Apprentissage de modèles pour la recherche d'images. In *Congrès de Reconnaissance des Formes et Intelligence Artificielle*, vol. 3, pages 781-789, 2002.
17. Y. Dufournaud, C. Schmid and R. Horaud. Appariement d'images à des échelles différentes. In *Congrès de Reconnaissance des Formes et Intelligence Artificielle*, vol. 2, pages 327-336, 2000.
18. S. Benayoun, H. Bernard, P. Bertolino, M. Gelgon, C. Schmid and F. Spindler. Structuration de vidéos pour des interfaces de consultation avancées. In *Compression et Représentation des Signaux Audiovisuels*, 1998.
19. C. Schmid and R. Mohr. Mise en correspondance par invariants locaux. In *Congrès de Reconnaissance des Formes et Intelligence Artificielle*, pages 236-245, 1996.