

Cordelia Schmid – Curriculum Vitae

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Education

- Habilitation, Computer Science, Institut National Polytechnique de Grenoble, November 2001. Dissertation: From image matching to learning visual models.
- Ph.D., 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

- IEEE Fellow, named in 2012.
- Longuet-Higgins prize for fundamental contributions in computer vision that have withstood the test of time, 2006.
- Best thesis award Institut National Polytechnique de Grenoble, 1997.
- Winner of TRECVID 2008 video copy detection competition.
- Winner of PASCAL Visual Object Classes Challenge Competitions, 2005–08, 10 & 11.
- Best poster prize, honorable mention, IEEE Conference 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 Conference on Automatic Extraction of GIS Objects from Digital Imagery, 1999.

Employment

- Research Director, INRIA, second class 2004 - 2008, first class 2008—.
- Head of the LEAR INRIA project-team, 2003—.
- 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.
- Software Engineer, INTEGRATA Software Development, Germany, 1992 - 1993.

Professional activities

More than 100 technical publications in international conferences and journals, for example in ICCV, CVPR, ECCV, IJCV and PAMI.

Editorial Board:

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

Program Chair:

- European Conference on Computer, 2012.
- IEEE Conference on Computer Vision and Pattern Recognition, 2005.

Workshop Chair:

- IPAM Workshop on Large Scale Multimedia Search, Los Angeles, US, 2012.
- CVPR'09 Workshop on Feature Detectors and Descriptors, 2009.
- 1st 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.

Area Chair:

- IEEE International Conference on Computer Vision, 2003, 2005, 2009.
- IEEE Conf. on Computer Vision and Pattern Recog., 2000, 2004, 2007, 2010.
- European Conference on Computer Vision, 2002, 2004, 2008, 2010.
- Congrès de Reconnaissance de Formes et Intelligence Artif., 2004, 2008, 2010.
- Asian Conference on Computer Vision, 2007.
- Neural Information Processing Systems, 2005, 2006.

Program committee member for most major computer vision as well as several learning conferences (NIPS, ICML) and many workshops. Reviewer for the major computer vision journals. Member of several best paper prize selection committees.

Supervision:

- 21 Ph.D. students.
- 8 postdocs.
- 9 engineers.

Teaching :

- Object recognition and computer vision, Master-2 MVA, ENS, 10 hours per year (equivalent 15hTD), 2008–2011.
- Object recognition, Master-2 Computer Science, Grenoble University, 10 hours per year (equivalent 15hTD), 2001-04, 07-11.
- 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 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 European projects, VENI (Netherlands), FACR (Québec), ANR (France), ANVAR (France), Israel Science Foundation, Vienna Science and Technology Fund, Czech Science Foundation.
 - Reviewer and examiner for many PhD and HDR theses.
- INRIA :
- President of the INRIA recruiting committees for Grenoble, 2009 and 2010.
 - Member of the “bureau du comité de projet”, INRIA Grenoble, 2007–2011.
 - Member of the “commission d’évaluation”, INRIA, 2002–2011.
 - Member of many INRIA recruiting committees, 2002—.
 - Representative for international relations at INRIA Grenoble, 2005–2007.
 - Member of the “commission emplois scientifiques” , INRIA Grenoble, 2002–06.
- Grants:
- EU integrated project AXES, 2011–2014.
 - Industrial contract with MBDA on pose and object identification, 2010-2013.
 - Research contract with Xerox, 2011-2013.
 - QUAERO search engine, French Grant “OSEO”, 2008-13.
 - MSR-INRIA project “Scientific image and video data mining”, 2008-12.
 - “Géométrie algorithmique informationnelle et applications”, French Grant “ANR blanc”, 2007-11.
 - 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, 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 :

- Co-founder and scientific advisor of the Start-Up MilPix. MilPix builds on and licences LEAR's technology for image search, in particular software for image description and large scale image indexing.
- Collaboration with the Aérospatiale section of MBDA for several years including software transfer (1999-2001, 2004-2010). Starting 2010, MBDA funds a three-year contract on object localization and pose estimation.
- Patent INPI 08/03345, H. Jégou (70%), C. Schmid (20%), M. Douze (10%), "Dispositif d'aide à la reconnaissance d'image amélioré", June 2008, Pending.
- Software distributed for interest points detection and description, shape description, face and human detection as well as spatio-temporal features, 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>.

Dissemination :

- 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

- Keynote speaker at the International Symposium on Visual Computing, Crete, Greece, July 2012.
- Workshop on Large Scale Multimedia Search, January 2012.
- NIPS WiML Workshop, December 2012.
- Symposium on Applied Perception in Graphics and Visualization, Toulouse, August 2011.
- Frontiers in Computer Vision Workshop, MIT, August 2011.
- Keynote speaker at Core'10, 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

- 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

- 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, Pittsburgh, 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 54 and the total number of citations to my publications is more than 19000. The number of citations are indicated in the following for publications with at least 20 citations. Most of my papers are available on the LEAR publication server at <http://lear.inrialpes.fr/pubs>.

Journal articles

1. A. Prest, C. Schmid and V. Ferrari. Weakly supervised learning of interactions between humans and objects. *IEEE Transactions on Pattern Analysis and Machine Intelligence*. To appear.
2. H. Jégou, F. Perronnin, M. Douze, J. Sánchez, P. Pérez and C. Schmid. Aggregating local image descriptors into compact codes. *IEEE Transactions on Pattern Analysis and Machine Intelligence*. To appear.
3. M. Guillaumin, T. Mensink, J. Verbeek, C. Schmid. Face recognition from caption-based supervision. *International Journal of Computer Vision*. To appear.
4. M. Marszalek and C. Schmid. Accurate Object Recognition with Shape Masks. *International Journal of Computer Vision*. To appear.
5. H. Jégou, M. Douze and C. Schmid. Product quantization for nearest neighbor search. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 33(1):117–128, 2011. **37 citations.**
6. H. Jégou, M. Douze and C. Schmid. Improving bag-of-features for large scale image search. *International Journal of Computer Vision*, 87(3):316–336, 2010. **51 citations.**
7. M. Douze, H. Jégou and C. Schmid. An image-based approach to video copy detection with spatiotemporal post-filtering. *IEEE Transactions on Multimedia*, 12(4):257–266, 2010. **20 citations.**
8. 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. **58 citations.**
9. H. Jégou, 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.
10. M. Heikkilä, M. Pietikainen and C. Schmid. Description of interest regions with local binary patterns. *Pattern Recognition*, 42(3):425–436, 2009. **125 citations.**
11. 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.

12. 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.
13. 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. **207 citations.**
14. C. Bouveyron, S. Girard and C. Schmid. High-dimensional data clustering. *Computational Statistics and Data Analysis*, 52(1):502-519, 2007. **58 citations.**
15. 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. **655 citations.**
16. 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. **51 citations.**
17. C. Bouveyron, S. Girard and C. Schmid. High-dimensional discriminant analysis. *Communications in Statistics: Theory and Methods*, vol. 36(14):2607-2623, 2007. **30 citations.**
18. 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. **158 citations.**
19. 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. **1218 citations.**
20. 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. **258 citations.**
21. K. Mikolajczyk and C. Schmid. A performance evaluation of local descriptors. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 27(10):1615-1630, 2005. **2296 citations.**
22. K. Mikolajczyk and C. Schmid. Scale & affine invariant interest point detectors. *International Journal of Computer Vision*, 60(1):63-86, 2004. **1707 citations.**
23. Y. Dufournaud, C. Schmid and R. Horaud. Image matching with scale adjustment. *Computer Vision and Image Understanding*, 93(2):175-194, 2004. **43 citations.**
24. 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 citations.**
25. 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. **101 citations.**
26. 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. **104 citations.**
27. C. Schmid, R. Mohr and C. Bauckhage. Evaluation of interest point detectors. *International Journal of Computer Vision*, 37(2):151-172, 2000. **964 citations.**

28. C. Schmid and R. Mohr. Local greyvalue invariants for image retrieval. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 19(5):530-534, 1997. **1218 citations.**
29. C. Schmid and R. Mohr. Mise en correspondance par invariants locaux. *Traitement du Signal*, 13(6):591-606, 1996.
30. 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

1. J. Ponce, M. Hebert, C. Schmid, and A. Zisserman (editors). Towards Category-Level Object Recognition. Springer Verlag, LNCS 4170, 2006. **27 citations.**

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. To appear.
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. To appear.
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. **75 citations.**
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. Quinonero editors, LNAI 3944, pp. 117-176, Springer Verlag, 2006. **135 citations.**
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. R. Cinbis, J. Verbeek and C. Schmid. Unsupervised metric learning for face identification in TV Video. In *International Conference on Computer Vision*, 2011.
2. 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.
3. A. Gaidon, Z. Harchaoui and C. Schmid. Actom sequence models for efficient action detection. In *IEEE Conference on Computer Vision and Pattern Recognition*, 2011.
4. 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.
5. 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.
6. M. Douze, H. Jégou, C. Schmid and P. Pérez. Compact video description with precise temporal alignment. In *European Conference on Computer Vision*, 2010.
7. 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.
8. M. Guillaumin, J. Verbeek and C. Schmid. Multimodal semi-supervised learning for image classification. In *IEEE Conference on Computer Vision and Pattern Recognition*, 2010.
9. H. Jégou, M. Douze, C. Schmid and P. Pérez. Aggregating local descriptors into a compact image representation. In *IEEE Conference on Computer Vision and Pattern Recognition*, 2010. **62 citations.**

10. 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. **53 citations.**
11. M. Guillaumin, J. Verbeek and C. Schmid. Is that you? Metric learning approaches for face identification. In *International Conference on Computer Vision*, 2009. **41 citations.**
12. H. Harzallah, F. Jurie and C. Schmid. Combining efficient object localization and image classification. In *International Conference on Computer Vision*, 2009. **42 citations.**
13. H. Jégou, M. Douze and C. Schmid. Packing bag-of-features. In *International Conference on Computer Vision*, 2009. **48 citations.**
14. M. Douze, H. Jégou, 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. **54 citations.**
15. H. Jégou, M. Douze and C. Schmid. On the burstiness of visual elements. In *IEEE Conference on Computer Vision and Pattern Recognition*, 2009. **31 citations.**
16. T. Jiang, F. Jurie and C. Schmid. Learning shape prior models for object matching. In *IEEE Conference on Computer Vision and Pattern Recognition*, 2009.
17. M. Marszałek, I. Laptev and C. Schmid. Actions in context. In *IEEE Conference on Computer Vision and Pattern Recognition*, 2009. **100 citations.**
18. 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. **234 citations.**
19. M. Marszalek and C. Schmid. Constructing category hierarchies for visual recognition. In *European Conference on Computer Vision*, 2008. **20 citations.**
20. C. Pantofaru, C. Schmid and M. Hebert. Object recognition by integrating multiple image segmentations. In *European Conference on Computer Vision*, 2008. **37 citations.**
21. 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. **368 citations.**
22. 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. **28 citations.**
23. 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. 57 citations.**
24. 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.
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