

Cordelia Schmid – Curriculum Vitae

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

- Royal Society Milner award, 2020.
- Koenderink prize for fundamental contributions in computer vision that have withstood the test of time, 2018.
- 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 & 2017.
- 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 CVPR 2020 Video Pentathlon challenge.
- 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

- Google research scientist, part-time 50%, 2018—.
- Research Director, Inria, second class 2004–2008, first class 2008–2015, exceptional class 2016—.
- Head of the THOTH Inria team, 2016–2018.
- 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 (2013–2018).

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: • Internation Conference on Computer Vision, 2023.
 • 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:
- Ellis Workshop for Computer Vision and Machine Learning, virtual, July 2020.
 - Workshop on YouTube-8M Large-Scale Video Understanding, in conjunction with ICCV'19, Seoul, 2019.
 - Ellis Workshop for Computer Vision and Machine Learning, San Sebastian, September 2019.
 - Workshop on Artificial Intelligence, Horizon Maths, Paris, 2018.
 - 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:
- PRAIRIE Artificial Intelligence Summer School, Grenoble, 2018.
 - 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 Comp. Vision, 2003, 2005, 2009, 2013, 2015, 2017, 2019, 2021.
 - IEEE Conf. on Comp. Vision & Pattern Recog., 2000, 2004, 2007, 2010, 2013.
 - European Conference on Computer Vision, 2002, 2004, 2008, 2010, 2016, 2018.
 - 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, 2018 (senior AC), 2019 (senior AC), 2020 (senior AC).
 - International Conference on Machine Learning, 2018.
- Award committee:
- CVPR 2020 best paper award.
 - Oréal-UNESCO award France for Women in Sciences 2017.
 - Young researcher award 2014, 2015 & 2020.
 - Longuet-Higgins award 2015, 2019.
 - Helmholtz award 1987–1999.
 - ECCV 2008 best paper prize.
 - NIPS 2006 best student paper.

- Supervision:
- 7 PhD students current; 32 PhD students graduated; five with awards: Longuet-Higgins award 2014 for K. Mikolajczyk; AFRIF PhD award 2014 for G. Cinbis; Longuet-Higgins award 2015 for N. Dalal; Longuet-Higgins award 2016 for S. Lazebnik; AFRIF PhD award 2019 and Ellis PhD award 2020 for G. Varol.
 - 18 postdocs past.
 - 1 engineer current; 12 engineers past.
- Teaching :
- Object recognition and computer vision, Master-2 MVA, ENS, 10 hours per year (equivalent 15hTD), 2008–2020.
 - Object recognition, Master-2 Computer Science, Grenoble University, 10 hours per year (equivalent 15hTD), 2001–2004, 2007–2019.
 - Image databases, 3rd year ENSIMAG, 12 hours per year, 2002–2003.
 - Object oriented software development, 2nd year ENSIMAG, 40 hours per year, 2001–2003.
 - Analysis of algorithms, 2nd year ENSIMAG and ESISAR, 80 hours per year, 1998–2001.
- Research:
- Member of TPAMI EIC search committee, 2021.
 - Member of Technical Activities Board for International Foundation of Robotics Research, 2020—.
 - Member of Scientific Advisory Committee of the Helmholtz AI Cooperation Unit, 2020—.
 - Member of scientific advisory board for the German Competence Centers for AI Research, 2019—.
 - Director of Ellis program on Computer Vision and Machine Learning, 2019—.
 - Member of board of directors of the Computer Vision Foundation (CVF), 2016—.
 - 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 33 PhD and 10 HDR theses.

Inria :

- Member of the Inria-académie des sciences award committee, 2019 & 2020.
- Member of the “Comité scientifique”, Inria Grenoble, 2015–2019.
- 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:

- Research contract with Naver Labs Europe, 2017-2018.
- Intel Network on Intelligent Systems Gift, 2017, 2018 & 2019.
- Amazon Academic Research Award, 2017 & 2018.
- Adobe Gift, 2017.
- Facebook University Gift, 2015–2020.
- Google Research Award, 2015–2016.
- ERC advanced grant ALLEGRO, 2013–2019.
- Research contract with Xerox, 2011-2013, 2014–2017.
- MSR-Inria project “Scientific image and video data mining”, 2008–2013, 2014–2017, 2018–2021.
- EU integrated project AXES, 2011–2014.
- Industrial contract with MBDA on pose and object identification, 2010–2013.
- QUAERO search engine, French Grant “OSEO”, 2008–2013.
- “Géométrie algorithmique informationnelle et applications (GAIA)”, French Grant “ANR blanc”, 2007–2011. Grand prix ANR du numérique.
- Prototype for an image search engine, French Grant “GRAVIT”, 2007–2008.
- Inria associated team with CMU, UIUC and Willow/Inria, 2007–2009.
- Industrial contract with MBDA on object recognition and detection, 2007–2010.
- Cognitive-level annotation using latent statistical structure (CLASS), European Grant, 2006–2009.
- Integrating knowledge, semantics and content for user-centered intelligent media services (aceMedia), European IP Grant, 2004–2007.
- Pattern Analysis, Statistical Modeling and Computational Learning (PASCAL & PASCAL 2), “Network of Excellence”, European Grant, 2004–2012.
- Modèles visuels et statistiques pour la reconnaissance de classes d’images, French Grant “ACI masse de données”, 2003–2006.
- EADS postdoctoral grant on shape description, 2006.
- Industrial contract with MBDA on object detection and tracking, 2005–2006.
- CNRS/UIUC Grant with Professor J. Ponce, 2000-2006.
- Learning for Adaptable Visual Assistants (LAVA), EU IST Grant, 2002–2005.
- Video Browsing, Exploration and Structuring (VIBES), European Grant, FET, 2000–2004.
- Global Architecture for Indexing and Retrieval of Multimedia Documents (AGIR), French Grant, RNT, 1999–2001.
- Industrial contract with Aérospatiale on matching of aerial images and missile images, 1999–2001.
- Industrial contract with Alcatel on the development of a prototype for interactive video navigation, 1996–1998.

Transfer :

- Patent, C. Sun, A. Shrivastava, C. Schmid, R. Sukthankar, K. Murphy and C. Vondrick. Action localization using relational features. Published 02/2020, WO/2020/033345A1.
- Patent, C. Schmid, S. Vijayanarasimhan, S. Ricco, B. Seybold, R. Sukthankar and K. Fragkiadaki. Determining structure and motion in images using neural networks. Published 11/2020, US/2020/0349722A1.
- Patent, V. Choutas (25%), P. Weinzaepfel (25%), J. Revaud (25%) and C. Schmid (25%). System and method for training a convolutional neural network and classifying an action performed by a subject in a video using the trained convolutional neural network. Published 10/2019, US/2019/0303677. Transferred to Naver.
- Patent, Z. Akata (25%), F. Perronnin (25%), Z. Harchaoui (25%) and C. Schmid (25%). Label-embedding view of attribute-based recognition. Published 12/2014, US/2014/0376804A1. Transferred to Xerox.
- Patent, H. Jégou (70%), C. Schmid (20%) and M. Douze (10%). Assistance device for image recognition. Published 07/2011, US/2011/0164822. 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 Aerospatiale 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, see <http://lear.inrialpes.fr/software>.
- Datasets, 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:

- Dinner speaker at the workshop “Women in Computer Vision”, in conjunction with CVPR’19.
- Participation in a round table on AI, a technology for innovation, forum 5i, Grenoble, May 2019.
- Animating several mentorship sessions at Women in Data Science Conference, Zürich, April 2019.
- Presentation at “An Evening with Google AI: Women in CV”, Sunnyvale, December 2018.
- Presentation on data for artificial intelligence at the Inria-Industry meeting, Paris, 2017.
- “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 “Women in Computer Vision”, in conjunction with CVPR’15, CVPR’17, CVPR’18, ECCV’18 & CVPR’19.
- Mentor at the Doctoral Consortium, in conjunction with ICCV’19, CVPR’19, ICCV’17, 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

- Milner lecture, November 2020.
- Keynote speaker at France is AI, November 2020.
- Invited speaker at Tracking and its many Guises Workshop, in conjunction with ECCV, virtual, August 2020.
- Invited speaker at Multi-modal Video Analysis Workshop, in conjunction with ECCV, virtual, August 2020.
- Keynote speaker at Computer Vision and Deep Learning Summit “Machines Can See”, virtual, June 2020.
- Keynote speaker at GdR ISIS, virtual, June 2020.
- Keynote speaker at ICRA, virtual, June 2020.
- Keynote speaker at Applied Machine Learning Days, Imaging Track, Lausanne, January 2020.
- Invited speaker at BMVA symposium in Video Understanding, London, September 2019.
- Keynote speaker at BMVC’19, Cardiff, UK, September 2019.
- Keynote speaker at SIGIR’19, Paris, July 2019.
- Invited speaker at Computer Vision after 5 Years, in conjunction with CVPR’19, June 2019.
- Invited speaker at Tutorial on Unifying Human Activity Understanding, in conjunction with CVPR’19, June 2019.
- Invited speaker at Facebook AI Video Summit, Los Angeles, June 2019.
- Keynote speaker at AI Experts Workshop in conjunction with the AI for Good Global Summit, Geneva, May 2019.
- Invited speaker at Women in Data Science Conference, Zürich, April 2019.
- Invited speaker at collège de France seminar (chair of Stephane Mallat), February 2019.
- Invited speaker at the Google Multimodal Machine Perception Workshop, San Francisco, October 2018.
- Invited speaker at 11th Perceptual Organization in Computer Vision Workshop: Action, Perception and Organization, in conjunction with ECCV 2018, September 2018.
- Invited speaker at “What is optical flow for?” workshop, in conjunction with ECCV 2018, September 2018.
- Invited speaker at Third International Workshop on Video Segmentation, in conjunction with ECCV 2018.
- Keynote speaker at Deep Learning Conference, Rennes, September 2018.
- Keynote speaker at ActivityNet workshop, in conjunction with CVPR’18, June 2018.

- Invited talk at CVPR Good Citizen of CVPR event, in conjunction with CVPR'18, June 2018.
- Keynote speaker at 3D Humans workkshop, in conjunction with CVPR, June 2018.
- Invited speaker at “Symposium sur l’IA à l’Académie des sciences”, Paris, February 2018.
- 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

- Course at Pairie artificial intelligence summer school (PAISS), virtual, July 2021.
- Course at APAC Graduate Symposium, virtual, March 2021.
- Course on action recognition at Pairie artificial intelligence summer school (PAISS), Paris, October 2019.
- Course on action recognition at the Data Science Summer School, Paris, June 2019.

- Course on action recognition at PRAIRIE Artificial Intelligence Summer School, Grenoble, July 2018.
- 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

- Talk at Academie des technologies, virtual, March 2021.
- Talk at EPFL Center of Intelligent Systems - CIS Colloquium, virtual, March 2021.

- Talk at inaugural Bell Labs webinar on Prairie research, December 2020.
- Talk at Google Research All Hands, virtual, August 2020.
- Talk at Inria/EPFL workshop, Grenoble, January 2019.
- Talk at Google EMEA research days, Zurich, December 2019.
- Talk at Workshop on AI for Robotics, Naver, Grenoble, November 2019.
- Talk at Google Research EMEA meeting, virtual, November 2019.
- Talk at Workshop - Robotics: a Challenge for the Artificial Intelligence, Toulouse, October 2019.
- Presentation at Prairie inauguration, Paris, October 2019.
- Seminar at DeepMind, London, September 2019.
- Seminar at Intel Network on Intelligent Systems, Munich, September 2019.
- Seminar at Ellis workshop, September 2019.
- Seminar at MPI Tübingen, July 2019.
- Seminar at WILLOW/SIERRA retreat, Marseille, June 2019.
- Seminar at Google MTV, April 2019.
- Seminar at ETH Zürich, March 2019.
- Presentation at “Prairie/industry meeting”, Paris, December 2018.
- Presentation at Google workshop on 3D Deep Learning, October 2018.
- Presentation at Google Paris inauguration, September 2018.
- Seminar for AI residents, Google MTV, June 2018.
- Seminar at MPI Tübingen, April 2018.
- Seminar at Google Zürich, April 2018.
- Seminar at Google Mountain View, March 2018.
- Seminar at Google Paris, March 2018.
- Seminar at Leopoldina ”section meeting”, Ulm, February 2018.
- Seminar at Intel Network on Intelligent Systems, Munich, August 2017.
- 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, Mountain 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, 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 125 and the total number of citations for my publications is more than 106 000.

Journal articles

1. Q. Le Lidec, I. Kalevatykh, I. Laptev, C. Schmid and J. Carpentier. Differentiable simulation for physical system identification. *IEEE Robotics and Automation Letters*, to appear.
2. G. Varol, I. Laptev, C. Schmid and A. Zisserman. Synthetic humans for action recognition from unseen viewpoints. *International Journal of Computer Vision*, to appear.
3. N. Dvornik, J. Mairal and C. Schmid. On the importance of visual context for data augmentation in scene understanding. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, online December 2019.
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5. P. Tokmakov, C. Schmid and K. Alahari. Learning to segment moving objects. *International Journal of Computer Vision*, 127(3):282-301, 2019.
6. G. Rogez and C. Schmid. Image-based synthesis for deep 3D human pose estimation. *International Journal of Computer Vision*, 126(9):993-1008, 2018.
7. N. Chesneau, K. Alahari and C. Schmid. Learning from web videos for event classification. *IEEE Transactions on Circuits and Systems for Video Technology*, 28(10):3019-3029, 2018.
8. B. Ham, M. Cho, C. Schmid and J. Ponce. Proposal flow: Semantic correspondences from object proposals. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 40(7):1711-1725, 2018.
9. G. Varol, I. Laptev, C. Schmid. Long-term convolutions for action recognition. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 40(6):1510-1517, 2018.
10. 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
11. 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.
12. 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.

13. J. Revaud, P. Weinzaepfel, Z. Harchaoui and C. Schmid. DeepMatching: Hierarchical deformable dense matching. *International Journal of Computer Vision*, 120(1):300-323, 2016.
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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.

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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.
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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.

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Refereed international conferences

1. R. Strudel, R. Garcia, J. Carpentier, J.-P. Laumond, I. Laptev and C. Schmid. Learning obstacle representations for neural motion planning. In *Conference on Robot Learning*, 2020.
2. H. Zhao, J. Gao, T. Lan, C. Sun, B. Sapp, B. Varadarajan, Y. Shen, Y. Shen, Y. Chai, C. Schmid, C. Li and D. Anguelov. TNT: Trajet-driveN Trajectory prediction. In *Conference on Robot Learning*, 2020.
3. Y. Tian, C. Sun, B. Poole, D. Krishnan, C. Schmid and P. Isola. What makes for good views for contrastive representation learning? In *Advances in Neural Information Processing Systems*, 2020.
4. N. Dvornik, C. Schmid and J. Mairal. Selecting relevant features from a multi-domain representation for few-shot classification. In *European Conference on Computer Vision*, 2020.

5. V. Gabeur, C. Sun, K. Alahari and C. Schmid. Multi-modal transformer for video retrieval. In *European Conference on Computer Vision*, 2020.
6. A. Arnab, C. Sun, A. Nagrani and C. Schmid. Uncertainty-aware weakly supervised action detection from untrimmed videos. In *European Conference on Computer Vision*, 2020.
7. Y. Chen, L. Van Gool, C. Schmid and C. Sminchisescu. Consistency guided scene flow estimation. In *European Conference on Computer Vision*, 2020.
8. A. Dave, T. Khurana, P. Tokmakov, C. Schmid and D. Ramanan. TAO: A large-scale benchmark for tracking any object. In *European Conference on Computer Vision*, 2020.
9. A. Iscen, J. Zhang, S. Lazebnik and C. Schmid. Memory-efficient incremental learning through feature adaptation. In *European Conference on Computer Vision*, 2020.
10. A. Iscen, G. Toliás, Y. Avrithis, O. Chum and C. Schmid. Graph convolutional networks for learning with few clean and many noisy labels In *European Conference on Computer Vision*, 2020.
11. A. Pashevich, I. Kalevatykh, I. Laptev and C. Schmid. Learning visual policies for building 3D shape categories. In *IEEE/RSJ International Conference on Intelligent Robots and Systems*, 2020.
12. A. Sablayrolles, M. Douze, C. Schmid and H. Jégou. Radioactive data: tracing through training. In *International Conference on Machine Learning*, 2020.
13. Y. Hasson, B. Tekin, F. Bogo, I. Laptev, M. Pollefeys and C. Schmid. Joint hand-object reconstruction with weak flow reconstruction. In *IEEE Conference on Computer Vision and Pattern Recognition*, 2020.
14. A. Nagrani, C. Sun, D. Ross, R. Sukthankar, C. Schmid and A. Zisserman. Speech2Action: Cross-modal supervision for action recognition. In *IEEE Conference on Computer Vision and Pattern Recognition*, 2020.
15. J. Gao, C. Sun, H. Zhao, Y. Shen, D. Anguelov, C. Li and C. Schmid. VectorNet: Encoding vectorized road context and agent dynamics for behavior prediction. In *IEEE Conference on Computer Vision and Pattern Recognition*, 2020.
16. J. Roth, S. Chaudhuri, O. Klejch, R. Marvin, A. Gallagher, L. Kaver, S. Ramaswamy, A. Stopczynski, C. Schmid, Z. Xi and C. Pantofaru. AVA-ActiveSpeaker: An audio-visual dataset for active speaker detection. In *IEEE International Conference on Acoustics, Speech, and Signal Processing*, 2020.
17. R. Strudel, A. Pashevich, I. Kalevatykh, I. Laptev, J. Sivic and C. Schmid. Learning to combine primitive skills: A step towards versatile robotic manipulation. In *IEEE International Conference on Robotics and Automation*, 2020.
18. T. Lucas, K. Shmelkov, K. Alahari, C. Schmid and J. Verbeek. Adversarial training of partially invertible variational autoencoders. In *Advances in Neural Information Processing Systems*, 2019.
19. C. Sun, A. Myers, C. Vondrick, K. Murphy and C. Schmid. VideoBERT: A joint model for video and language representation learning. In *International Conference on Computer Vision*, 2019.

20. Y. Chen, C. Schmid and C. Sminchisescu. Self-supervised learning with geometric constraints in monocular video: Connecting flow, depth, and camera. In *International Conference on Computer Vision*, 2019.
21. N. Dvornik, C. Schmid and J. Mairal. Diversity with cooperation: Ensemble methods for few-shot classification. In *International Conference on Computer Vision*, 2019.
22. J. Peyre, I. Laptev, C. Schmid and J. Sivic. Detecting unseen visual relations using analogies. In *International Conference on Computer Vision*, 2019.
23. V. Gabeur, J.-S. Franco, X. Martin, C. Schmid and G. Rogez. Moulding humans: Non-parametric 3D human shape estimation from single images. In *International Conference on Computer Vision*, 2019.
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25. White-box vs black-box: Bayes optimal strategies for membership inference. A. Sablayrolles, M. Douze, C. Schmid, Y. Ollivier and H. Jegou. In *International Conference on Machine Learning*, 2019.
26. Relational action forecasting. C. Sun, A. Shrivastava, C. Vondrick, R. Sukthankar, K. Murphy and C. Schmid. In *IEEE Conference on Computer Vision and Pattern Recognition*, 2019.
27. Learning joint reconstruction of hands and manipulated objects. Y. Hasson, G. Varol, D. Tzionas, I. Kalevatykh, M. Black, I. Laptev and C. Schmid. In *IEEE Conference on Computer Vision and Pattern Recognition*, 2019.
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31. G. Cheron, J.-B. Alayrac, I. Laptev and C. Schmid. A flexible model for training action localization with varying levels of supervision. In *Advances in Neural Information Processing Systems*, 2018.
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37. F. Castro, M. Marn-Jimenez, N. Guil, C. Schmid and K. Alahari. End-to-end incremental learning. In *European Conference on Computer Vision*, 2018.
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