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Citizenship: Dutch, Date of birth: December 21, 1975

Curriculum Vitae – Jakob Verbeek

Academic Background

2016 • Habilitation à Diriger des Recherches (HDR, accreditation to supervise research) in Computer Science and Applied Mathematics, Université Grenoble Alpes. Thesis: *Machine learning solutions to visual recognition problems.*

2004 • Doctorate Computer Science (best thesis award), Informatics Institute, University of Amsterdam. Advisors: Prof. Dr. Ir. F. Groen, Dr. Ir. B. Kröse, and Dr. N. Vlassis. Thesis: *Mixture models for clustering and dimension reduction.*

2000 • Master of Science in Logic (with honours), Institute for Language, Logic, and Computation, University of Amsterdam. Advisor: Prof. Dr. M. van Lambalgen. Thesis: *An information theoretic approach to finding word groups for text classification.*

1998 • Master of Science in Artificial Intelligence (with honours), Dutch National Research Institute for Mathematics and Computer Science & University of Amsterdam. Advisors: Prof. Dr. P. Vitányi, Dr. P. Grünwald, and Dr. R. de Wolf. Thesis: *Overfitting using the minimum description length principle.*

Awards

2011 • Outstanding Reviewer Award, IEEE Conference on Computer Vision and Pattern Recognition.

2009 • Outstanding Reviewer Award, IEEE Conference on Computer Vision and Pattern Recognition.

2006 • Biannual E.S. Gelsema Award of the Dutch Society for Pattern Recognition and Image Processing for best PhD thesis and associated international journal publications.

2000 • Regional winner of yearly best MSc thesis award Dutch Society for Computer Science.

Employment

since 2017 • Senior Research Scientist (DR2), THOTH Team, INRIA, Grenoble.

2009-2017 • Research Scientist (CR1), LEAR/THOTH Team, INRIA, Grenoble.

2007-2009 • Research Scientist (CR2), LEAR Team, INRIA, Grenoble.

2005-2007 • Postdoc, LEAR Team, INRIA, Grenoble.

2004-2005 • Postdoc, Intelligent Autonomous Systems group, Informatics Institute, University of Amsterdam.

Professional Activities

Participation in Research Projects

2016-2019 • *Deep Convolutional and Recurrent networks for image, speech, and text*, coordinator, funded by Persyval laboratory of excellence, Grenoble.

2016-2019 • *Structured prediction for weakly supervised semantic segmentation*, funded by Facebook Artificial Intelligence Research (FAIR) Paris and French national research and technology agency (ANRT).

2016-2019 • *Deep in France*, co-organizer, funded by French national research agency (ANR).

2015-2016 • *Incremental learning for object category localization*, research contract with MBDA Systems.

2013-2016 • *Physionomie: Physiognomic Recognition for Forensic Investigation* , funded by French national research agency (ANR).

2011-2015 • *AXES: Access to Audiovisual Archives*, European integrated project, 7th Framework Programme.

2010-2013 • *Quaero Consortium for Multimodal Person Recognition*, funded by French national research agency (ANR).

2009-2012 • *Modeling multi-media documents for cross-media access*, funded by Xerox Research Centre Europe (XRCE) and French national research and technology agency (ANRT).

2008-2010 • *Interactive Image Search*, funded by French national research agency (ANR).

2006-2009 • *Cognitive-Level Annotation using Latent Statistical Structure (CLASS)*, funded by European Union Sixth Framework Programme.

2000-2005 • *Tools for Non-linear Data Analysis*, funded by Dutch Technology Foundation (STW).

Professional Activities (continued)

Teaching

2015-2017 • Lecturer in MSc course *Kernel Methods for Statistical Learning*, École Nationale Supérieure d'Informatique et de Mathématiques Appliquées (ENSIMAG), Grenoble, France.

2008-2017 • Lecturer in MSc course *Machine Learning and Category Representation*, École Nationale Supérieure d'Informatique et de Mathématiques Appliquées (ENSIMAG), Grenoble, France.

2003-2005 • Lecturer in MSc course *Machine learning: pattern recognition*, University of Amsterdam, The Netherlands.

2003-2005 • Lecturer in graduate course *Advanced issues in neurocomputing*, Advanced School for Imaging and Computing, The Netherlands.

1997-2000 • Teaching assistant in courses MSc Artificial Intelligence, University of Amsterdam, The Netherlands.

Supervision of MSc and PhD Students

since 2016 • Maha Elbayad, PhD, *Attention mechanisms and multilingual aspects of image captioning models.*

since 2016 • Thomas Lucas, PhD, *Deep networks for visual recognition: Architecture learning and unsupervised learning*.

since 2016 • Pauline Luc, PhD, *Weakly supervised structured prediction for semantic segmentation.*

2016 • Thomas Lucas, MSc, *Recurrent neural network approaches for image captioning.*

2015 • Jerome Lesaint, MSc, *Image and video captioning.*

since 2013 • Shreyas Saxena, PhD, *Recognizing people in the wild.*

2013 • Shreyas Saxena, MSc, *Metric learning for face verification.*

2011-2015 • Dan Oneaţă, PhD, *Large-scale machine learning for video analysis.*

2010-2014 • Gokberk Cinbis, PhD, *Fisher kernel based models for image classification and object localization*, awarded AFRIF best thesis award 2014.

2009-2012 • Thomas Mensink, PhD, *Modeling multi-media documents for cross-media access*, awarded AFRIF best thesis award 2012.

2010 • Kenneth Funes Mora, MSc, *Robust face descriptors in uncontrolled settings*.

2008-2011 • Josip Krapac, PhD, *Image search using combined text and image content*.

2006-2010 • Matthieu Guillaumin, PhD, *Learning models for visual recognition from weak supervision.*

2009 • Gaspard Jankowiak, intern, *Decision tree quantization of image patches for image categorization.*

2007-2008 • Thomas Mensink, intern, *Finding people in captioned news images.*

2005 • Markus Heukelom, MSc, *Face detection and pose estimation using part-based models.*

2003 • Jan Nunnink, MSc, *Large scale mixture modelling using a greedy expectation-maximisation algorithm.*

2003 • Noah Laith, MSc, *A fast greedy k-means algorithm.*

PhD Jury Member

2017 • Rapporteur for Praveen Kulkarni, Univ. Caen, France, January 23.

2016 • Rapporteur for Binod Bhattarai, Univ. Caen, France, December 16.

2016 • External reviewer for Amir Ghodrati, Univ. Leuven, Belgium, October 21.

2013 • External reviewer for Karen Simonyan, Univ. Oxford, U.K. November 6.

2012 • External reviewer for Noah Elfiky, Computer Vision Center Barcelona, Spain, June 4.

Associate Editor

since 2014 • International Journal of Computer Vision.

since 2011 • Image and Vision Computing Journal.

Chairs for International Conferences

- Tutorial Chair European Conference on Computer Vision: 2016.
- Area Chair IEEE Conference on Computer Vision and Pattern Recognition: 2015.
- Area Chair European Conference on Computer Vision: 2012, 2014.
- Area Chair British Machine Vision Conference: 2012, 2013, 2014.

Programme Committee Member for Conferences, including

- International Conference on Learning Representations: 2017.
- International Conference on Machine Learning: 2017.
- IEEE International Conference on Computer Vision: 2009, 2011, 2013, 2015.
- European Conference on Computer Vision: 2008, 2010, 2016.
- IEEE Conference on Computer Vision and Pattern Recognition: 2006–2014, 2016.
- Neural Information Processing Systems: 2006–2010, 2012–2013, 2016–2017.

Professional Activities (continued)

- British Machine Vision Conference: 2017.
- Reconnaissance des Formes et l'Intelligence Artificielle: 2016.

Reviewer for International Journals, including

since 2008 • International Journal of Computer Vision.
since 2005 • IEEE Transactions on Neural Networks.
since 2004 • IEEE Transactions on Pattern Analysis and Machine Intelligence.

Reviewer of research grant proposals, including

2017 • Starting Grant, European Research Council (ERC).
• CIFRE Industrial PhD grant, French national research and technology agency (ANRT).
• Erwin Schrödinger Fellowship, Austrian Science Fund (FWF).
2015 • Postdoctoral fellowship grant, Research Foundation Flanders (FWO).
2014 • Collaborative Research grant, French National Research Association (ANR).
2014 • Collaborative Research grant, Indo-French Centre for the Promotion of Advance Research (IFCPAR).
2010 • Postdoctoral VENI grant, Netherlands Organisation for Scientific Research (NWO).

Miscellaneous

Research Visits

2011 • Visiting researcher Statistical Machine Learning group, NICTA Canberra, Autralia, May 2011.
2003 • Machine Learning group University of Toronto, Prof. Sam Roweis, Canada, May–September 2003.

Summer Schools, Workshops & Tutorials

2017 • International Conference on Image Processing Theory, Tools and Applications, invited tutorial, Montreal, Canada, November 28.
2016 • NVIDIA GPU Technology Conference, invited speaker, Amsterdam, The Netherlands, September 28.
2015 • DGA workshop on Big Data in Multimedia Information Processing, invited speaker, Paris, France, October 22.
• Physionomie workshop at European Academy of Forensic Science conference, co-organizer and speaker, Prague, Czech Republic, September 9.
• StatLearn workshop, invited speaker, April 13, 2015, Grenoble, France.
2014 • 3rd Croatian Computer Vision Workshop, Center of Excellence for Computer Vision, invited speaker, September 16, 2014, Zagreb, Croatia.
2011 • 2nd IST Workshop on Computer Vision and Machine Learning, Institute of Science and Technology, invited presentation, October 7, Vienna, Austria.
• Workshop on 3D and 2D Face Analysis and Recognition, Ecole Centrale de Lyon / Lyon University, invited presentation, January 28.
2010 • NIPS Workshop on Machine Learning for Next Generation Computer Vision Challenges, co-organizer, December 10, Whistler BC, Canada.
• ECCV Workshop on Face Detection: Where are we, and what next?, invited presentation, September 10, Hersonissos, Greece.
• INRIA Visual Recognition and Machine Learning Summer School, 1h lecture, July 26–30,Grenoble, France.
2009 • Workshop "Statistiques pour le traitement de l'image", Université Paris 1 Panthéon-Sorbonne, invited speaker, January 23.
2008 • International Workshop on Object Recognition, poster presentation, May 16–18 2008, Moltrasio, Italy.

Seminars

2017 • Aalto University, Helsinki, Finland, *Areas of attention for image captioning*, June 8.
• ATOS, Grenoble, *Convolutional neural fabrics*, January 26.
• Technicolor Imaging Science Lab, Rennes, France *Areas of attention for image captioning*, January 23.
2016 • GREYC, University of Caen, France, *Convolutional neural fabrics*, December 16.
• PSI team, department of Electrical Engineering (ESAT), University of Leuven, Belgium, *Convolutional neural fabrics*, October 21.
2015 • Société Francaise de Statistique, Institut Henri Poincaré, Paris, France, *Object detection with incomplete supervision*, October 23.

Miscellaneous (continued)

- Center for Machine Perception, Czech Technical University, Prague, Czech Republic, *Object detection with incomplete supervision*, September 8.
- Dept. of Information Engineering and Computer Science, University of Trento, Italy, *Object detection with incomplete supervision*, March 16.
- Computer Vision Center, Barcelona, Spain, *Object detection with incomplete supervision*, February 13.

2013
- Intelligent Systems Laboratory Amsterdam, University of Amsterdam, The Netherlands, *Segmentation Driven Object Detection with Fisher Vectors*, October 15.
- Media Integration and Communication Center at the University of Florence, Italy, *Segmentation Driven Object Detection with Fisher Vectors*, September 24.
- DGA workshop on Multimedia Information Processing (TIM 2013), Paris, France, *Face verification "in the wild"*, July 2.

2012
- Computer Vision and Machine Learning group, Institute of Science and Technology, Vienna, Austria, *Image categorization using Fisher kernels of non-iid image models*, June 11.
- Computer Vision Center, Barcelona, Spain, *Image categorization using Fisher kernels of non-iid image models*, June 4.
- TEXMEX Team, INRIA, Rennes, France, *Image categorization using Fisher kernels of non-iid image models*, April 20.

2011
- Statistical Machine Learning group, NICTA, Canberra, Australia, *Modelling spatial layout for image classification*, May 26.
- Canon Information Systems Research Australia, Sydney, Australia, *Learning structured prediction models for interactive image labeling*, May 20.

2010
- Laboratoire TIMC-IMAG, Learning: Models and Algorithms team, Grenoble, *Metric learning approaches for image annotation and face verification*, October 7.
- University of Oxford, Visual Geometry Group, Oxford, *TagProp: a discriminatively trained nearest neighbor model for image auto-annotation*, February 1.

2009
- Laboratoire Jean Kuntzmann, Grenoble, *Machine learning for semantic image interpretation*, June 11.
- University of Amsterdam, Intelligent Systems Laboratory, *Discriminative learning of nearest-neighbor models for image auto-annotation*, April 28.
- Université de Caen, Laboratoire GREYC, *Improving People Search Using Query Expansions*, February 5.

2008
- Computer Vision Center, Autonomous University of Barcelona, *Improving People Search Using Query Expansions*, September 26.
- Computer Vision Lab, Max Planck institute for Biological Cybernetics, *Scene Segmentation with CRFs Learned from Partially Labeled Images*, July 31.
- Textual and Visual Pattern Analysis team, Xerox Research Centre Europe, *Scene Segmentation with CRFs Learned from Partially Labeled Images*, April 24.

2006
- Parole group, LORIA Nancy, *Unsupervised learning of low-dimensional structure in high-dimensional data*.
- Content Analysis group, Xerox Research Centre Europe, *Manifold learning: unsupervised, correspondences, and semi-supervised*.

2005
- Learning and Recognition in Vision group, INRIA Rhône-Alpes, *Manifold learning & image segmentation*.
- Computer Engineering Group, Bielefeld University, *Manifold learning with local linear models and Gaussian fields*.

2004
- Algorithms and Complexity group, Dutch Center for Mathematics and Computer Science, *Semi-supervised dimension reduction through smoothing on graphs*.

2003
- Machine Learning team, Radboud University Nijmegen, *Spectral methods for dimension reduction and non-linear CCA*.

2002
- Information and Language Processing Systems group, University of Amsterdam, *A generative model for the Self-Organizing Map*.

Publications

In peer reviewed international journals

2017
- G. Cinbis, J. Verbeek, C. Schmid. *Weakly Supervised Object Localization with Multi-fold Multiple Instance Learning.* IEEE Transactions on Pattern Analysis and Machine Intelligence 39 (1), pp. 189–203, 2017.

2016
- M. Douze, J. Revaud, J. Verbeek, H. Jégou, C. Schmid. *Circulant temporal encoding for video retrieval and temporal alignment.* International Journal of Computer Vision 119 (3), pp. 291–306, 2016.
- H. Wang, D. Oneaţă, J. Verbeek, C. Schmid. *A robust and efficient video representation for action recognition.* International Journal of Computer Vision 119 (3), pp. 219–238, 2016.
- G. Cinbis, J. Verbeek, C. Schmid. *Approximate Fisher kernels of non-iid image models for image categorization.* IEEE Transactions on Pattern Analysis and Machine Intelligence 38 (6), pp. 1084-1098, 2016.

2013
- J. Sánchez, F. Perronnin, T. Mensink, J. Verbeek. *Image classification with the Fisher vector: theory and practice.* International Journal of Computer Vision 105 (3), pp. 222–245, 2013.

Publications (continued)

- T. Mensink, J. Verbeek, F. Perronnin, G. Csurka. *Distance-based image classification: generalizing to new classes at near-zero cost.* IEEE Transactions on Pattern Analysis and Machine Intelligence 35 (11), pp. 2624–2637, 2013.
- T. Mensink, J. Verbeek, G. Csurka. *Tree-structured CRF models for interactive image labeling.* IEEE Transactions on Pattern Analysis and Machine Intelligence 35 (2), pp. 476–489, 2013.

2012
- M. Guillaumin, T. Mensink, J. Verbeek, C. Schmid. *Face recognition from caption-based supervision.* International Journal of Computer Vision, 96(1), pp. 64–82, January 2012.

2010
- 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), pp. 2–11, January 2010.
- D. Larlus, J. Verbeek, F. Jurie. *Category level object segmentation by combining bag-of-words models with Dirichlet processes and random fields.* International Journal of Computer Vision 88(2), pp. 238–253, June 2010.

2009
- 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), pp. 1512–1523, July 2009.

2006
- J. Verbeek, J. Nunnink, and N. Vlassis. *Accelerated EM-based clustering of large data sets.* Data Mining and Knowledge Discovery 13(3), pp. 291–307, November 2006.
- J. Verbeek and N. Vlassis. *Gaussian fields for semi-supervised regression and correspondence learning.* Pattern Recognition 39(10), pp. 1864–1875, October 2006.
- J. Verbeek. *Learning nonlinear image manifolds by global alignment of local linear models.* IEEE Transactions on Pattern Analysis and Machine Intelligence 28(8), pp. 1236–1250, August 2006.

2005
- J. Porta, J. Verbeek, B. Kröse. *Active appearance-based robot localization using stereo vision.* Autonomous Robots 18(1), pp. 59–80, January 2005.
- J. Verbeek, N. Vlassis, and B. Kröse. *Self-organizing mixture models.* Neurocomputing 63, pp. 99–123, January, 2005.

2003
- J. Verbeek, N. Vlassis, and B. Kröse. *Efficient greedy learning of Gaussian mixture models.* Neural Computation 15(2), pp. 469–485, February 2003.
- A. Likas, N. Vlassis, and J. Verbeek. *The global k-means clustering algorithm.* Pattern Recognition 36(2), pp. 451–461, February 2003.

2002
- J. Verbeek, N. Vlassis, and B. Kröse. *A k-segments algorithm for finding principal curves.* Pattern Recognition Letters 23(8), pp. 1009–1017, June 2002.

In peer reviewed international conferences

2016
- S. Saxena and J. Verbeek. *Convolutional neural fabrics.* Advances in Neural Information Processing Systems, December 2016.

2014
- D. Oneaţă, J. Revaud, J. Verbeek, C. Schmid. *Spatio-Temporal object detection proposals.* Proceedings European Conference on Computer Vision, September 2014.
- G. Cinbis, J. Verbeek, C. Schmid. *Multi-fold MIL training for weakly supervised object localization.* Proceedings IEEE Conference on Computer Vision and Pattern Recognition, June 2014.
- D. Oneaţă, J. Verbeek, C. Schmid. *Efficient action localization with approximately normalized Fisher vectors.* Proceedings IEEE Conference on Computer Vision and Pattern Recognition, June 2014.

2013
- G. Cinbis, J. Verbeek, C. Schmid. *Segmentation driven object detection with Fisher vectors.* Proceedings IEEE International Conference on Computer Vision, December 2013.
- D. Oneaţă, J. Verbeek, C. Schmid. *Action and event recognition with Fisher vectors on a compact feature set.* Proceedings IEEE International Conference on Computer Vision, December 2013.

2012
- T. Mensink, J. Verbeek, F. Perronnin, G. Csurka. *Metric learning for large scale image classification: generalizing to new classes at near-zero cost.* Proceedings European Conference on Computer Vision, October 2012. (oral)
- G. Cinbis, J. Verbeek, C. Schmid. *Image categorization using Fisher kernels of non-iid image models.* Proceedings IEEE Conference on Computer Vision and Pattern Recognition, June 2012.

2011
- J. Krapac, J. Verbeek, F. Jurie. *Modeling spatial layout with Fisher vectors for image categorization.* Proceedings IEEE International Conference on Computer Vision, November 2011.
- G. Cinbis, J. Verbeek, C. Schmid. *Unsupervised metric learning for face identification in TV video.* Proceedings IEEE International Conference on Computer Vision, November 2011.
- J. Krapac, J. Verbeek, F. Jurie. *Learning tree-structured descriptor quantizers for image categorization.* Proceedings British Machine Vision Conference, September 2011.
- T. Mensink, J. Verbeek, G. Csurka. *Learning structured prediction models for interactive image labeling.* Proceedings IEEE Conference on Computer Vision and Pattern Recognition, June 2011.

2010
- M. Guillaumin, J. Verbeek, C. Schmid. *Multiple instance metric learning from automatically labeled bags of faces.* Proceedings European Conference on Computer Vision, September 2010.
- M. Guillaumin, J. Verbeek, C. Schmid. *Multimodal semi-supervised learning for image classication.* Proceedings IEEE Conference on Computer Vision and Pattern Recognition, June 2010. (oral)
- J. Krapac, M. Allan, J. Verbeek, F. Jurie. *Improving web image search results using query-relative classifiers.* Proceedings IEEE Conference on Computer Vision and Pattern Recognition, June 2010.

Publications (continued)

- T. Mensink, J. Verbeek, G. Csurka. *Trans Media Relevance Feedback for Image Autoannotation.*Proceedings British Machine Vision Conference, September 2010.
- T. Mensink, J. Verbeek, H. Kappen. *EP for efficient stochastic control with obstacles.* Proceedings European Conference on Artificial Intelligence, August 2010. (oral)
- J. Verbeek, M. Guillaumin, T. Mensink, C. Schmid. *Image Annotation with TagProp on the MIRFLICKR set.* Proceedings ACM International Conference on Multimedia Information Retrieval, March 2010. (invited paper)

2009
- M. Guillaumin, T. Mensink, J. Verbeek, C. Schmid. *TagProp: Discriminative metric learning in nearest neighbor models for image auto-annotation.* Proceedings IEEE International Conference on Computer Vision, September 2009. (oral)
- M. Guillaumin, J. Verbeek, C. Schmid. *Is that you? Metric learning approaches for face identification.* Proceedings IEEE International Conference on Computer Vision, September 2009.
- M. Allan, J. Verbeek *Ranking user-annotated images for multiple query terms.* Proceedings British Machine Vision Conference, September 2009.

2008
- M. Guillaumin, T. Mensink, J. Verbeek, C. Schmid. *Automatic face naming with caption-based supervision.* Proceedings IEEE Conference on Computer Vision and Pattern Recognition, pp. 1–8, June 2008.
- T. Mensink, and J. Verbeek. *Improving people search using query expansions: How friends help to find people.* Proceedings European Conference on Computer Vision, pp. 86–99, October 2008. (oral)
- J. Verbeek and B. Triggs. *Scene segmentation with CRFs learned from partially labeled images.* Advances in Neural Information Processing Systems 20, pp. 1553–1560, January 2008. (oral)
- H. Cevikalp, J. Verbeek, F. Jurie, and A. Kläser. *Semi-supervised dimensionality reduction using pairwise equivalence constraints.* Proceedings International Conference on Computer Vision Theory and Applications, pp. 489–496, January 2008.

2007
- J. van de Weijer, C. Schmid, and J. Verbeek. *Learning color names from real-world images.* Proceedings IEEE Conference on Computer Vision and Pattern Recognition, pp. 1–8, June 2007.
- J. Verbeek and B. Triggs. *Region classification with Markov field aspect models.* Proceedings IEEE Conference on Computer Vision and Pattern Recognition, pp. 1–8, June 2007.
- J. van de Weijer, C. Schmid, and J. Verbeek. *Using high-level visual information for color constancy.* Proceedings IEEE International Conference on Computer Vision, pp. 1–8, October 2007.

2006
- Z. Zivkovic and J. Verbeek. *Transformation invariant component analysis for binary images.* Proceedings IEEE Conference on Computer Vision and Pattern Recognition, pp. 254–259, June 2006.

2004
- J. Verbeek, S. Roweis, and N. Vlassis. *Non-linear CCA and PCA by alignment of local models.* Advances in Neural Information Processing Systems 16, pp. 297–304, January 2004. (oral)

2003
- J. Porta, J. Verbeek, and B. Kröse. *Enhancing appearance-based robot localization using non-dense disparity maps.* Proceedings International Conference on Intelligent Robots and Systems, pp. 980–985, October 2003.
- J. Verbeek, N. Vlassis, and B. Kröse. *Self-organization by optimizing free-energy.* Proceedings 11th European Symposium on Artificial Neural Networks, pp. 125–130, April 2003.

2002
- J. Verbeek, N. Vlassis, and B. Kröse. *Coordinating principal component analyzers.* Proceedings International Conference on Artificial Neural Networks, pp. 914–919, August 2002. (oral)
- J. Verbeek, N. Vlassis, and B. Kröse. *Fast nonlinear dimensionality reduction with topology preserving networks.* Proceedings 10th European Symposium on Artificial Neural Networks, pp. 193–198, April 2002. (oral)

2001
- J. Verbeek, N. Vlassis, and B. Kröse. *A soft k-segments algorithm for principal curves.* Proceedings International Conference on Artificial Neural Networks, pp. 450–456, August 2001.

Book chapters

2013
- T. Mensink, J. Verbeek, F. Perronnin, and G. Csurka. *Large scale metric learning for distance-based image classification on open ended data sets.* In: G. Farinella, S. Battiato, and R. Cipolla. *Advances in Computer Vision and Pattern Recognition*, Springer, 2013.

2012
- R. Benavente, J. van de Weijer, M. Vanrell, C. Schmid, R. Baldrich, J. Verbeek, and D. Larlus. *Color Names.* In: T. Gevers, A. Gijsenij, J. van de Weijer, and J. Geusebroek. *Color in Computer Vision*, Wiley, 2012.

Workshops and regional conferences

2016
- P. Luc, C. Couprie, S. Chintala, and J. Verbeek. *Semantic segmentation using adversarial networks.* NIPS Workshop on adversarial training, December 2016.
- S. Saxena and J. Verbeek. *Heterogeneous face recognition with CNNs.* ECCV Workshop on transferring and adapting source knowledge in computer vision, October 2016.

2015
- S. Saxena and J. Verbeek. *Coordinated Local Metric Learning.* ICCV ChaLearn Looking at People workshop, December 2015.
- V. Zadrija, J. Krapac, J. Verbeek, and S. Šegvić. *Patch-level Spatial Layout for Classification and Weakly Supervised Localization.* German Conference on Pattern Recognition, October 2015.

Publications (continued)

2014
- M. Douze, D. Oneata, M. Paulin, C. Leray, N. Chesneau, D. Potapov, J. Verbeek, K. Alahari, Z. Harchaoui, L. Lamel, J.-L. Gauvain, C. Schmidt, and C. Schmid. *The INRIA-LIM-VocR and AXES submissions to Trecvid 2014 Multimedia Event Detection.* TRECVID Workshop, November, 2014.
- D. Oneata, J. Verbeek, and C. Schmid. *The LEAR submission at Thumos 2014.* ECCV Thumos action recognition workshop, September 2014.

2013
- R. Aly, R. Arandjelovic, K. Chatfield, M. Douze, B. Fernando, Z. Harchaoui, K. Mcguiness, N. O'Connor, D. Oneaţă, O. Parkhi, D. Potapov, J. Revaud, C. Schmid, J.-L. Schwenninger, D. Scott, T. Tuytelaars, J. Verbeek, H. Wang, and A. Zisserman. *The AXES submissions at TrecVid 2013.* TRECVID Workshop, November, 2013.
- H. Bredin, J. Poignant, G. Fortier, M. Tapaswi, V.-B. Le, A. Roy, C. Barras, S. Rosset, A. Sarkar, Q. Yang, H. Gao, A. Mignon, J. Verbeek, L. Besacier, G. Quénot, H. Ekenel, and R. Stiefelhagen. *QCompere @ REPERE 2013.* Workshop on Speech, Language and Audio for Multimedia, August 2013.

2012
- D. Oneaţă, M. Douze, J. Revaud, J. Schwenninger, D. Potapov, H. Wang, Z. Harchaoui, J. Verbeek, C. Schmid, R. Aly, K. Mcguiness S. Chen, N. O'Connor, K. Chatfield, O. Parkhi, and R. Arandjelovic, A. Zisserman, F. Basura, and T. Tuytelaars. *AXES at TRECVid 2012: KIS, INS, and MED.* TRECVID Workshop, November, 2012.
- H. Bredin, J. Poignant, M. Tapaswi, G. Fortier, V. Bac Le, T. Napoleon, H. Gao, C. Barras, S. Rosset, L. Besacier, J. Verbeek, G. Quénot, F. Jurie, H. Kemal Ekenel. *Fusion of speech, faces and text for person identification in TV broadcast.* ECCV Workshop on Information fusion in Computer Vision for Concept Recognition, October, 2012.

2011
- T. Mensink, J. Verbeek, and T. Caetano. *Learning to Rank and Quadratic Assignment.* NIPS Workshop on Discrete Optimization in Machine Learning, December 2011.

2010
- T. Mensink, G. Csurka, F. Perronnin, J. Sánchez, and J. Verbeek. *LEAR and XRCEs participation to Visual Concept Detection Task - ImageCLEF 2010.* Working Notes for the CLEF 2010 Workshop, September 2010.
- M. Guillaumin, T. Mensink, J. Verbeek, and C. Schmid. *Apprentissage de distance pour l'annotation d'images par plus proches voisins.* Reconnaissance des Formes et Intelligence Artificielle, January 2010.

2009
- M. Douze, M. Guillaumin, T. Mensink, C. Schmid, and J. Verbeek. *INRIA-LEARs participation to ImageCLEF 2009.* Working Notes for the CLEF 2009 Workshop, September 2009.

2004
- J. Nunnink, J. Verbeek, and N. Vlassis. *Accelerated greedy mixture learning.* Proceedings Annual Machine Learning Conference of Belgium and the Netherlands, pp. 80–86, January 2004.

2003
- J. Verbeek, N. Vlassis, and J. Nunnink. *A variational EM algorithm for large-scale mixture modeling.* Proceedings Conference of the Advanced School for Computing and Imaging, pp. 136–143, June 2003.
- J. Verbeek, N. Vlassis, and B. Kröse. *Non-linear feature extraction by the coordination of mixture models.* Proceedings Conference of the Advanced School for Computing and Imaging, pp. 287–293, June 2003.

2002
- J. Verbeek, N. Vlassis, and B. Kröse. *Locally linear generative topographic mapping.* Proceedings Annual Machine Learning Conference of Belgium and the Netherlands, pp. 79–86, December 2002.

2001
- J. Verbeek, N. Vlassis, and B. Kröse. *Efficient greedy learning of Gaussian mixtures.* Proceedings 13th Belgian-Dutch Conference on Artificial Intelligence, pp. 251–258, October 2001.
- J. Verbeek, N. Vlassis, and B. Kröse. *Greedy Gaussian mixture learning for texture segmentation.* (oral) ICANN Workshop on Kernel and Subspace Methods for Computer Vision, pp. 37–46, August 2001.

2000
- J. Verbeek. *Supervised feature extraction for text categorization.* Proceedings Annual Machine Learning Conference of Belgium and the Netherlands, December 2000.

1999
- J. Verbeek. *Using a sample-dependent coding scheme for two-part MDL.* Proceedings Machine Learning & Applications (ACAI '99), July 1999.

Patents

2012
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