

# Curriculum Vitae

## Ivan Laptev

INRIA / ENS  
23 avenue d'Italie  
75013 Paris, FRANCE  
Phone: +33 (0)1 39 63 51 80  
E-mail: [ivan.laptev@inria.fr](mailto:ivan.laptev@inria.fr)  
Web: <http://www.di.ens.fr/~laptev>

## Degrees

- Habilitation à diriger des recherches (HDR), École normale supérieureRoyal (ENS), France, 2013, Dissertation: “Modeling and visual recognition of human actions and interactions”,
- PhD in Computer Science, Royal Institute of Technology (KTH), Sweden, 2004, Dissertation: “Local Spatio-Temporal Image Features for Motion Interpretation”, advisor: prof. Tony Lindeberg.
- MSc in Computer Science, Royal Institute of Technology (KTH), Sweden, 1997.

## Awards and distinctions

- ERC Junior grant, 2012.
- INRIA award for outstanding research “Prime d'excellence scientifique” 2010.
- Outstanding review awards at ECCV 2008, CVPR 2009 and ECCV 2010.
- Honorable mention in PASCAL VOC Challenge, 2007.
- Blanceflor scholarship award, 2004.

## Employment

- Research director, INRIA/ENS Willow team, Paris, France, 2013—.
- Research scientist, INRIA/ENS Willow team, Paris, France, 2009-2013.
- Research scientist, INRIA Vista team, Rennes, France, 2005-2009.
- Postdoc, INRIA Vista team, Rennes, France, 2004-2005.
- PhD scholarship, KTH/CVAP, Stockholm, Sweden, 2000-2004.
- Research assistant, TUM, Munich, Germany, 1997-1999.

## Professional activities

- Editorial board
- IEEE Transactions on Pattern Analysis and Machine Intelligence, 2014—.
  - International Journal of Computer Vision, 2010—.
  - Image and Video Computing, 2009-2015.

- Workshop co-organizer
- ICCV'14 THUMOS: The Second International Workshop on Action Recognition with a Large Number of Classes, Zurich, Switzerland, 2014.
  - ICCV'13 THUMOS: The First International Workshop on Action Recognition with a Large Number of Classes, Sydney, Australia, 2013.
  - ECCV'12 Workshop on Action Recognition and Pose Estimation in Still Images, Florence, Italy, 2012.
  - CVPR'11 Workshop on Gesture Recognition, Colorado Springs, US, 2011.
- Program chair
- IEEE Conference on Computer Vision and Pattern Recognition (CVPR) 2018.
- Area chair
- IEEE Conference on Computer Vision and Pattern Recognition (CVPR) 2010, 2013, 2015.
  - IEEE International Conference on Computer Vision (ICCV) 2011.
  - European Conference on Computer Vision (ECCV) 2012, 2014.
  - Asian Conference on Computer Vision (ACCV), 2014.
  - IEEE International Conference on Automatic Face and Gesture Recognition, 2011.
- Summer School co-organizer
- 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.
- Supervision
- 11 PhD students, 5 postdocs, 2 engineers, 20 interns.
- Teaching
- Object recognition and computer vision, ENS, France, 2008-2014.
  - Visual object recognition and localization, SkolTech, Moscow, January 2014, 30h.
  - Visual Recognition: Objects, Actions and Scenes, University of Trento, Italy, July 2014, 20h.
  - Computer vision course, KTH, Sweden, 2003.
  - Teaching assistance for Computer Vision course, KTH, Sweden, 2001-2004.
  - Teaching assistance for Numerical Methods course, KTH, Sweden, 2003.
  - Computer vision course, TUM, Germany 1998-1999.
- Grants
- Google Research Award, Co-PI, 2015. Total funding: 80kE.
  - ERC junior grant ACTIVIA, PI. Total funding for 2013–2017: 1,5ME.
  - Google Research Award, Co-PI, 2012. Total funding: 50kE.
  - QUAERO program, funded by OSEO. Leader of the tasks “Motion Recognition” and “Event recognition”. Total funding during 2008–2013: 658kE.
  - EIT-ICT Labs funded activity “Cross-linking Visual Information and Internet Resources using Mobile Networks”. Funding in 2011-2012: 76kE.
  - MSR-INRIA project “Image and Video Mining for Sciences and Humanities”. Funding during 2009-2011: 300kE.

- DGA funded project CrowdChecker supporting postdoc of Mikel Rodriguez, funding in 2010–2011: 70kE.
  - Technicolor travel and equipment grant during 2009–2011: 15kE.
  - MUSCLE European Network of Excellence 2004–2008.
- Public software and benchmarks
- Software for extracting Space-Time Interest Points (STIP) from video<sup>1</sup>. The STIP software has been used in >50 research publications.
  - Software for rapid object detection in images and video.<sup>2</sup>
  - KTH human action dataset<sup>3</sup>. The dataset has become a standard benchmark for human action recognition used in >200 research publications.
  - Hollywood-2 human action dataset which is currently considered as one of the most challenging and realistic benchmarks for action recognition.<sup>4</sup>
- Transfer
- Consultant for ProfilTechnology company, Paris, France, 2012.
  - Scientific adviser of VisionLabs start-up, Moscow, Russia 2011—.
  - Scientific adviser of OculusAI start-up, Stockholm, Sweden, 2008-2009.
- INRIA/ENS
- Member of the postdoc selection committee, INRIA, 2012—.
  - Member of Conseil de Laboratoire DI, ENS, 2013.

## Invited Presentations

- Invited conference and workshop presentations
- Deep Video Workshop, Santa Cruz, USA, Nov., 2015.
  - EHES, Paris, France, Nov., 2015.
  - NCCV, (Keynote Speaker) Sept. 14-15, Lunteren, The Netherlands, 2015.
  - DALI Workshop, La Palma, Spain, April 2015.
  - GDR-ISIS, Paris, France, March, 2015.
  - CVPR'15 Area Chair Workshop, Boston, MA, USA, March 2015.
  - Deep Learning Summit, San Francisco, USA, Jan. 2015.
  - ICVGIP, (Plenary Speaker) Dec. 14-17, Bangalore, India, 2014.
  - ECCV'14 Area Chair Workshop, Zurich, Switzerland, June 2014.
  - Workshop on Perceptual Organization, CVPR'14, Columbus, June 2014.
  - Computer Vision Winter Workshop, Křtiny, Czech Republic, Feb. 2014.
  - 1st Workshop on Understanding Human Activities, Sydney, Australia, Dec. 2013.
  - IEEE Workshop on Decoding Subtle Cues from Social Interactions, Sydney, Australia, Dec. 2013.

---

<sup>1</sup><http://www.irisa.fr/vista/Equipe/People/Laptev/download.html#stip>

<sup>2</sup><http://www.irisa.fr/vista/Equipe/People/Laptev/download.html#objectdetection>

<sup>3</sup><http://www.nada.kth.se/cvap/actions/>

<sup>4</sup><http://www.irisa.fr/vista/actions/hollywood2/>

- Int. Workshop on Action Similarity in Unconstrained Videos, Portland, Oregon, USA, June 2013.
  - Japanese-French Frontiers of Science Symposium, Kyoto, Japan, Jan. 2013.
  - 3rd IST Austria Symposium on Computer Vision and Machine Learning, Vienna, Austria, Oct. 2012.
  - First Croatian Workshop on Computer Vision, Zagreb, Croatia, Sept. 2012.
  - 10th Workshop on Content Based Multimedia Indexing, Annecy, France June 2012.
  - 3rd AFCV International Workshop on Recent Trends in Computer Vision, Osaka, Japan, Jan. 2012.
  - ICCV'11 International Workshop on Video Event Categorisation, Barcelona, Spain, Nov. 2011.
  - Assemblée generale du GdR ISIS, Saint-Georges-de-Didonne, France, May 2011.
  - GDR-ISIS scientific meeting, Paris, France, December 2010
  - ECCV'10 Workshop on Sign, Gesture and Activity, Grece, Sept. 2010.
  - ICPR'10 Workshop on Analysis and Evaluation of Large-Scale Multimedia Collections, Istanbul, Turkey, Aug. 2010.
  - ICPR'10 Workshop on Human Behaviour Understanding, Istanbul, Turkey, Aug. 2010.
  - International Workshop on Frontiers of Activity Recognition, Los Angeles, USA, June 2010.
  - SIBGRAPI keynote talk, Rio de Janeiro, Brazil, Oct. 2009.
  - Workshop on Trends in Computer Vision, Prague, July 2009.
  - International Workshop on Video, Barcelona, May 2009.
  - International Workshop on Object Recognition, Lake Como, Italy, May 2008.
  - MUSCLE conference, Cannes, France, Feb. 2008.
  - Techno-Vision meeting keynote speaker, Paris, France, July 2007.
  - The Rank Prize Funds, Windermere, UK, July 2007.
  - Workshop on category-level object recognition, Siracusa, Italy, Sep. 2006.
  - Workshop on Computational Vision, Rosenö, Sweden, July 2003.
- Tutorials and courses
- Tutorial on Visual object recognition and localization, 9th Russian Summer School in Information Retrieval (RuSSIR), St Peresburg, August 2015.
  - CVPR'14 Tutorial on Emerging Topics in Human Activity Recognition, Columbus, Ohio, USA, June 2014.
  - Tutorial on human action recognition at the INRIA Visual Recognition and Machine Learning Summer School, Paris, July 2013.
  - Tutorial on human action recognition at the INRIA Visual Recognition and Machine Learning Summer School, Grenoble, July 2012.

- Tutorial on human action recognition at the Human Activity and Vision Summer School, Sophia-Antipolis, France, Oct. 2012.
- Tutorial on human action recognition at the AERFAI Summer School on pattern recognition in multimodal human interaction, Vigo, Spain, June 2012.
- Tutorial on human action recognition at the Microsoft Computer Vision School, Moscow, Russia, Aug. 2011.
- Tutorial on human action recognition at the International Computer Vision Summer School, Sicily, Italy, July 2011.
- Tutorial on human action recognition at the INRIA/ENS Visual Recognition and Machine Learning Summer School, Paris, July 2011.
- Tutorial on human action recognition at the Computer Vision and Machine Learning Winter School, ENS Lyon, Jan. 2011.
- ECCV'10 Tutorial on Statistical and Structural Recognition of Human Actions, Heraclion, Crete, Greece, Sept. 2010.
- Tutorial on human action recognition at the INRIA Visual Recognition and Machine Learning Summer School, Grenoble, July 2010.
- Tutorial on human action recognition at the AERFAI Summer School on Pattern Recognition and Machine Learning in Multimedia Systems, Benicàssim, Spain, June 2010.
- Short course on human motion analysis at the Summer School on Machine Learning, Statistics and Computer Vision, Ezhou, China, July 2008.
- Series of lectures on scale-space theory, matching and recognition of static images and video sequences, INRIA, Rennes, France, 2005.
- Amazon, Seattle, USA, Nov., 2015.
- Institute for Computer Graphics and Vision, TU Graz, Austria, July, 2015.
- Bauman Moscow State Technical University, Moscow, Russia, April 2015.
- INRIA Sophia-Antipolis, Dec. 5, 2014.
- KU Leuven, Belgium, November 24, 2014.
- Steklov Institute of Mathematics, Saint Petersburg, Russia, Nov. 17, 2014.
- Univ. of Trento, Trento, Italy, July. 2014.
- IDIAP, Martigny, Switzerland, Feb. 2014.
- EPFL, Lausanne, Switzerland, Feb. 2014.
- SkolTech, Moscow, Russia, Jan. 2014.
- KTH, Stockholm, Sweden, Jan. 2014.
- Technicolor, Paris, France, June 2013.
- TU Darmstadt, Darmstadt, Germany, May 2013.
- Xerox Research Centre Europe, Grenoble, France, March 2013.
- University of Washington, Seattle, USA, Feb. 2013.
- CMU, Pittsburgh, USA, Nov. 2012.
- Oxford Univ., Oxford, UK, Sept. 2012.

Invited presentations at universities and companies

- KTH, Stockholm, Sweden, Dec. 2011.
- University of Luxembourg, Luxembourg, Nov. 2010.
- Google, Mountain View, USA, Aug. 2010.
- GIPSA-Lab, Grenoble, Nov. 2008.
- Intel, Beijing, China, Dec. 2007.
- LIAMA, Beijing, China, Dec. 2007.
- INRIA/LEAR, Grenoble, France, May 2007.
- Microsoft Research, Beijing, China, Jan. 2007.
- INRIA/ORION, Sophia Antipolis, France, Nov. 2005.
- Microsoft Research, Cambridge, UK, Aug. 2004.
- Technical University of Prague, Nov. 2003.

## Publications

I have published over 50 papers in international journals and major peer-reviewed conferences. The leading conferences in computer vision (ICCV, ECCV, CVPR) and machine learning (NIPS) have a low acceptance rate typically below 25%, and publications in their proceedings are considered as important as journal publications. The top journals of the field are the International Journal of Computer Vision (IJCV) and the IEEE Trans. on Pattern Analysis and Machine Intelligence (PAMI). Overall, my publications have **over 14,000 citations** and my **h-number is 37** (both obtained from Google Scholar). Most of publications are available at <http://www.di.ens.fr/~laptev>.

## Journal articles

1. G. Seguin, K. Alahari, J. Sivic and I. Laptev (2015). Pose Estimation and Segmentation of Multiple People in Stereoscopic Movies *IEEE Trans. on Pattern Analysis and Machine Intelligence*, 37(8):1643–1655.
2. Fouhey, D., Delaitre, V., Gupta, A., Efros A., Laptev I. and Sivic, J. (2014). "People Watching: Human Actions as a Cue for Single View Geometry, *International Journal of Computer Vision*, 110(3):259-274. (**53 citations**)
3. Junejo, I., Dexter, E., Laptev, I., Pérez, P. (2010). View-Independent Action Recognition from Temporal Self-Similarities, *IEEE Trans. on Pattern Analysis and Machine Intelligence*, 33(1):172–185. (**216 citations**)
4. Laptev, I. (2009). Improving Object Detection with Boosted Histograms, *Image and Vision Computing*, 27: 535–544. (**112 citations**)
5. Laptev, I., Caputo, B., Schüldt, C. and Lindeberg, T. (2007). Local Velocity-Adapted Motion Events for Spatio-Temporal Recognition, *Computer Vision and Image Understanding* (108): 207–229. (**152 citations**)
6. Laptev, I. (2005). On Space-Time Interest Points, *International Journal of Computer Vision* 64(2/3): 107–123. (**2190 citations**)

7. Laptev, I. and Lindeberg, T. (2004). Velocity-adaptation of spatio-temporal receptive fields for direct recognition of activities: An experimental study, *Image and Vision Computing* **22**(2): 105–116. **(19 citations)**
8. Laptev, I. and Lindeberg, T. (2003). A distance measure and a feature likelihood map concept for scale-invariant model matching, *International Journal of Computer Vision* **52**(2/3): 97–120. **(11 citations)**
9. Hellwich, O., Laptev I., and Mayer H. (2002). Extraction of linear objects from interferometric SAR data, *International Journal of Remote Sensing* **23**(3): 461–475. **(13 citations)**
10. Laptev, I., Mayer, H., Lindeberg, T., Eckstein, W., Steger, C. and Baumgartner, A. (2000). Automatic extraction of roads from aerial images based on scale-space and snakes, *Machine Vision and Applications* (12): 23–31. **(250 citations)**

### Refereed international conferences

1. V. Kantorov, M. Oquab, M. Cho and I. Laptev (2016). ContextLocNet: Context-aware deep network models for weakly supervised localization, *Proc. European Conference on Computer Vision*, Amsterdam, The Netherlands.
2. G. Sigurdsson, G. Varol, X. Wang, A. Farhadi, I. Laptev and A. Gupta (2016). Hollywood in homes: Crowdsourcing data collection for activity understanding, *Proc. European Conference on Computer Vision*, Amsterdam, The Netherlands.
3. G. Sigurdsson, O. Russakovsky, A. Farhadi, I. Laptev and A. Gupta (2016). Much ado about time: Exhaustive annotation of temporal data, *Proc. AAAI Conference on Human Computation and Crowdsourcing*, Austin, TX, USA.
4. J.-B. Alayrac, P. Bojanowski, N. Agrawal, J. Sivic, I. Laptev and S. Lacoste-Julien (2016). Unsupervised learning from narrated instruction videos, *Proc. IEEE Conf. on Computer Vision and Pattern Recognition*, Las Vegas, MA, USA.
5. G. Seguin, P. Bojanowski, R. Lajugie and I. Laptev (2016). Instance-level video segmentation from object tracks, *Proc. IEEE Conf. on Computer Vision and Pattern Recognition*, Las Vegas, MA, USA.
6. S. Kwak, M. Cho and I. Laptev (2016). Thin-slicing for pose: Learning to understand pose without explicit pose estimation, *Proc. IEEE Conf. on Computer Vision and Pattern Recognition*, Las Vegas, MA, USA.
7. P. Bojanowski, R. Lajugie, E. Grave, F. Bach, I. Laptev, J. Ponce and C. Schmid (2015). Weakly-Supervised Alignment of Video with Text, *Proc. IEEE Int. Conference on Computer Vision*, Santiago, Chile.
8. T.-H. Vu, A. Osokin and I. Laptev (2015). Context-aware CNNs for person head detection, *Proc. IEEE Int. Conference on Computer Vision*, Santiago, Chile.

9. G. Cheron, I. Laptev and C. Schmid (2015). P-CNN: Pose-based CNN Features for Action Recognition, *Proc. IEEE Int. Conference on Computer Vision*, Santiago, Chile.
10. S. Kwak, M. Cho, I. Laptev, J. Ponce and C. Schmid (2015). Unsupervised Object Discovery and Tracking in Video Collections, *Proc. IEEE Int. Conference on Computer Vision*, Santiago, Chile.
11. M. Oquab, L. Bottou, I. Laptev and J. Sivic (2015). Weakly Supervised Object Recognition with Convolutional Neural Networks, *Proc. IEEE Conf. on Computer Vision and Pattern Recognition*, Boston, MA, USA. **(15 citations)**
12. V. Chari, S. Lacoste-Julien, I. Laptev and J. Sivic (2015). On Pairwise Costs for Network Flow Multi-Object Tracking, *Proc. IEEE Conf. on Computer Vision and Pattern Recognition*, Boston, MA, USA.
13. T.-H. Vu, C. Olsson, I. Laptev, A. Oliva and J. Sivic (2014). Predicting Actions from Static Scenes, *Proc. European Conference on Computer Vision*, Zurich, Switzerland.
14. P. Bojanowski, R. Lajugie, F. Bach, I. Laptev, J. Ponce, C. Schmid and J. Sivic (2014). Weakly supervised action labeling in videos under ordering constraints, *Proc. European Conference on Computer Vision*, Zurich, Switzerland. **(11 citations)**
15. M. Oquab, L. Bottou, I. Laptev and J. Sivic (2014). Learning and Transferring Mid-Level Image Representations using Convolutional Neural Networks, *Proc. IEEE Conf. on Computer Vision and Pattern Recognition*, Columbus, Ohio, USA. **(140 citations)**
16. V. Kantorov and I. Laptev (2014). Efficient feature extraction, encoding and classification for action recognition, *Proc. IEEE Conf. on Computer Vision and Pattern Recognition*, Columbus, Ohio, USA. **(14 citations)**
17. P. Bojanowski, F. Bach, I. Laptev, J. Ponce, C. Schmid and J. Sivic (2013). Finding Actors and Actions in Movies, *Proc. IEEE International Conference on Computer Vision*, Sydney, Australia. **(21 citations)**
18. G. Seguin K. Alahari, J. Sivic and I. Laptev (2013). Pose Estimation and Segmentation of People in 3D Movies, *Proc. IEEE International Conference on Computer Vision*, Sydney, Australia. **(7 citations)**
19. Delaitre, V., Fouhey, D.F., Laptev, I., Sivic, J., Gupta, A. and Efros, A. (2012). Scene semantics from long-term observation of people, *Proc. European Conference on Computer Vision*, Florence, Italy. **(38 citations)**
20. Fouhey, D.F., Delaitre, V., Gupta, A., Efros, A., Laptev, I. and Sivic J. (2012). People watching: Human actions as a cue for single view geometry *Proc. European Conference on Computer Vision*, Florence, Italy. **(44 citations)**
21. Azizpour, H. and Laptev, I. (2012). Object Detection Using Strongly-Supervised Deformable Part Models, *Proc. European Conference on Computer Vision*, Florence, Italy. **(64 citations)**



22. Ullah, M.M. and Laptev, I. (2012). Actlets: A novel local representation for human action recognition in video *Proc. IEEE International Conference on Image Processing*, Orlando, Florida, USA. **(14 citations)**
23. Delaitre, V. and Sivic, J. and Laptev, I. (2011). Learning person-object interactions for action recognition in still images *Proc. Neural Information Processing Systems*, Granada, Spain. **(51 citations)**
24. Rodriguez, M., Laptev, I., Sivic, J. and Audibert, J.-Y. (2011). Density-aware person detection and tracking in crowds *Proc. IEEE International Conference on Computer Vision*, Barcelona, Spain. **(96 citations)**
25. Rodriguez, M., Sivic, J., Laptev I. and Audibert, J.-Y. (2011). Data-driven Crowd Analysis in Videos *Proc. IEEE International Conference on Computer Vision*, Barcelona, Spain. **(83 citations)**
26. Lezama, J., Alahari, K., Sivic, J. and Laptev, I. (2011). Track to the Future: Spatio-temporal Video Segmentation with Long-range Motion Cues *Proc. IEEE Conf. on Computer Vision and Pattern Recognition*, Colorado Springs, USA. **(103 citations)**
27. Raja, K., Laptev, I., Pérez, P. and Oisel, L. (2011). Joint pose estimation and action recognition in image graphs *Proc. IEEE International Conference on Image Processing*, Brussels, Belgium. **(14 citations)**
28. Delaitre, V., Laptev, I. and Sivic, J. (2010). Recognizing human actions in still images: a study of bag-of-features and part-based representations *Proc. British Machine Vision Conference*, Aberystwyth, UK. **(103 citations)**
29. Ullah, M.M., Parizi S.N. and Laptev, I. (2010). Improving bag-of-features action recognition with non-local cues *Proc. British Machine Vision Conference*, Aberystwyth, UK **(84 citations)**
30. Duchenne, O., Laptev, I., Sivic, J., Bach, F., and Ponce, J. (2009). Automatic Annotation of Human Actions in Video, *Proc. International Conference on Computer Vision*, Kyoto, Japan. **(134 citations)**
31. Parizi, S.N., Laptev, I. and Targhi, A.T. (2009). Modeling Image Context using Object Centered Grid *Proc. Digital Image Computing: Techniques and Applications*, pp. 476–483, Melbourne, Australia. **(2 citations)**
32. Dexter, E., Pérez, P. and Laptev, I. (2009). Multi-view synchronization of human actions and dynamic scenes *Proc. British Machine Vision Conference*, London, UK. **(20 citations)**
33. Dexter, E., Pérez, P., Laptev, I. and Junejo I.N. (2009). View-independent Video Synchronization from Temporal Self-similarities *Proc. International Conference on Computer Vision Theory and Applications*, pp. 383–391, Lisboa, Portugal.
34. Wang, H., Ullah, M.M., Klser, A., Laptev I., and Schmid C. (2009). Evaluation of local spatio-temporal features for action recognition, *Proc. British Machine Vision Conference*, London, UK. **(815 citations)**

35. Marszałek, M., Laptev, I., Schmid, C. (2009). Actions in context, *Proc. Computer Vision and Pattern Recognition*, Miami, US (**602 citations**)
36. Laptev, I., Marszałek, M., Schmid, C., and Rozenfeld, B. (2008). Learning realistic human actions from movies, *Proc. Computer Vision and Pattern Recognition*, Anchorage, US. (**1818 citations**)
37. Junejo, I., Dexter, E., Laptev, I., Pérez, P. (2008) Cross-View Action Recognition from Temporal Self-Similarities, *Proc. European Conference on Computer Vision*, Marseille, France. (**159 citations**)
38. Laptev, I. and Pérez, P. (2007). Retrieving actions in movies, *Proc. 11<sup>th</sup> International Conference on Computer Vision*, Rio de Janeiro, Brazil. (**333 citations**)
39. Law-To, J., Chen, L., Joly, A., Laptev, I., Buisson, O., Gouet-Brunet, V., Boujemaa, N. and Stentiford, F. (2007). Video copy detection: a comparative study, *Proc. 6th ACM International Conference on Image and video Retrieval*, Amsterdam, The Netherlands, pp. 371–378. (**298 citations**)
40. Laptev, I. (2006). Improvements of Object Detection Using Boosted Histograms, *Proc. British Machine Vision Conference*, Edinburgh, UK, pp. III:949–958. (**175 citations**)
41. Laptev, I., Belongie, S., Pérez, P. and Wills, J. (2005). Periodic Motion Detection and Segmentation via Approximate Sequence Alignment, *Proc. 10<sup>th</sup> International Conference on Computer Vision*, Beijing, China, pp. I:816–823. (**72 citations**)
42. Laptev, I. and Lindeberg, T. (2004). Velocity adaptation of space-time interest points, *Proc. International Conference for Pattern Recognition*, Cambridge, UK, pp. I:52–56. (**48 citations**)
43. Schüldt, C., Laptev, I. and Caputo, B. (2004). Recognizing human actions: a local SVM approach, *Proc. International Conference for Pattern Recognition*, Cambridge, UK, pp. III:32:36. (**2052 citations**)
44. Lindeberg, T., Akbarzadeh, A. and Laptev, I. (2004). Galilean-corrected spatio-temporal interest operators, *Proc. International Conference for Pattern Recognition*, Cambridge, UK, pp. I:57–62. (**18 citations**)
45. Laptev, I. and Lindeberg, T. (2003). Space-Time Interest Points, *Proc. Ninth International Conference on Computer Vision*, Nice, France, pp. 432–439.
46. Laptev, I. and Lindeberg, T. (2003). Interest point detection and scale selection in space-time, in L. Griffin and M. Lillholm (eds), *Scale-Space'03*, Vol. 2695 of *Lecture Notes in Computer Science*, Springer Verlag, Berlin, pp. 372–387. (**29 citations**)
47. Bretzner, L., Laptev I., and Lindeberg, T. (2002). Hand gesture recognition using multi-scale colour features, hierarchical models and particle filtering in *Proc. 5th IEEE International Conference on Automatic Face and Gesture Recognition*, Washington D.C., May, pp. 423–428. (**342 citations**)

48. Laptev, I. and Lindeberg, T. (2001). A multi-scale feature likelihood map for direct evaluation of object hypotheses, *in* M. Kerckhove (ed.), *Scale-Space'01*, Vol. 2106 of *LNCS*, Springer, pp. 98–110. **(3 citations)**
49. Laptev, I. and Lindeberg, T. (2001). Tracking of multi-state hand models using particle filtering and a hierarchy of multi-scale image features, *in* M. Kerckhove (ed.), *Scale-Space'01*, Vol. 2106 of *LNCS*, Springer, pp. 63–74. **(101 citations)**
50. Mayer, H., Laptev, I. and Baumgartner, A. (1998). Multi-Scale and Snakes for Automatic Road Extraction, *in* H. Burkhardt and B. Neumann (eds), *Proc. Fifth European Conference on Computer Vision*, Vol. I of *Lecture Notes in Computer Science*, Springer Verlag, Berlin, Freiburg, Germany, pp. 720–733. **(63 citations)**
51. Mayer, H., Laptev, I., Baumgartner, A. and Steger, C. (1997). Automatic road extraction based on multi-scale modeling, context, and snakes *Proc. International Archives of Photogrammetry and Remote Sensing*, 32 (Part 3), pp.106–113. **(70 citations)**

### Other publications

1. Klaser, A., Marszaek, M., Laptev, I. and Schmid, C. (2010). Will person detection help bag-of-features action recognition? *INRIA Tech. Report RR-7373*. **(29 citations)**
2. Cherniavsky, N., Laptev, I., Sivic, J. and Zisserman, A. (2010). Semi-supervised learning of facial attributes in video *First International Workshop on Parts and Attributes* in conjunction with ECCV, Hersonissos, Greece.
3. Benmokhtar, R. and Laptev, I. (2010). INRIA-WILLOW at TRECVID 2010: Surveillance Event Detection *Proc. TREC Video retrieval evaluation*, Gaithersburg, USA.
4. Laptev, I. and Lindeberg, T. (2004). Local descriptors for spatio-temporal recognition, *in Proc. ECCV Workshop on Spatial Coherence for Visual Motion Analysis (SCVMA)*. **(179 citations)**
5. Laptev, I. and Lindeberg, T. (2002). Velocity-adaptation of spatio-temporal receptive fields for direct recognition of activities: An experimental study, *in Proc. ECCV Workshop on Statistical Methods in Video Processing*, pp. 61–66. **(20 citations)**
6. Bretzner, L., Laptev, I., Lindeberg, T., Lenman, S. and Sundblad, Y. (2001). A prototype system for computer vision based human computer interaction, *KTH Technical Report ISRN KTH/NA/P-01/09-SE*. **(39 citations)**
7. Klupsch, M., Lückenhaus, M., Zierl, C., Laptev, I., Bandlow, T., Grimme, M., Kellerer, K., and Schwarzer, F. (1999). Agilo robocuppers: Robocup team description. *in RoboCup-98: Robot Soccer World Cup II*, volume 1604 of *Lecture Notes in Computer Science*. Springer, pp. 446–451.

- Radig, B., Niemann, H., Zhuravlev, Y., Gourevitch, I. and Laptev, I. (Eds.) (1999). Pattern Recognition and Image Understanding, *Proc. of 5th Open German-Russian Workshop*, Sankt Augustin, Infix.

### **HDR thesis**

- Laptev, I. (2013). Modeling and visual recognition of human actions and interactions, Département d'Informatique, Ecole Normale Supérieure (ENS), Paris, France.

### **PhD thesis**

- Laptev, I. (2004). Local Spatio-Temporal Image Features for Motion Interpretation, Department of Numerical Analysis and Computing Science (NADA), Royal Institute of Technology (KTH), S-100 44, Stockholm, Sweden. ISBN 91-7283-793-4

### **MSc thesis**

- Laptev, I. (1997). Road Extraction Based on Snakes and Sophisticated Line Extraction, Department of Numerical Analysis and Computing Science (NADA), Royal Institute of Technology (KTH), S-100 44, Stockholm, Sweden.

Paris

September 11, 2016