Indrė Žliobaitė
Academic Portfolio for Docentship

2015 June

Research Website: http://www.zliobaite.com
Research Blog: http://zliobaite.github.io
GitHub: https://github.com/zliobaite
E-mail: indre.zliobaite@helsinki.fi
Phone: +358 505 221981

1. Basic information

Present employer, position title, start date

University of Helsinki, Finland (80%)	Researcher	since January 2015
HIIT/Aalto University, Finland (now 20%, in 2013–2014 100%)	Researcher	since March 2013

Degrees and diplomas

2010	PhD in Informatics	Vilnius University, Lithuania
2006	MSc in Informatics	Vilnius University, Lithuania
2003	BSc in Economics and Finance	Stockholm School of Economics in Riga, Latvia

Previous employment

2011–2013	Bournemouth University, UK	Lecturer
2010–2011	TU Eindhoven, The Netherlands	Postdoctoral Researcher
2005–2009	Swedbank, Lithuania	Senior Credit Analyst
2003–2005	Bank NORD/LB, Lithuania	Credit Analyst

2. Qualifications in research and doctoral training

Honours and awards by scientific societies

2011   Finalist for the Annual Best Dissertation Award in Lithuania (top 5 dissertations)

Nature and scope of publications

About 3/4 of my publications are basic research in machine learning and data mining (mostly methods and algorithms related to predictive modeling for streaming data), and about 1/4 of my publications are in applied data analysis in various domains, such as traffic analysis, computational forest science, healthcare, chemical engineering, computational paleoecology, energy, and electrical engineering.

Publication counts: 18 journal publications (incl. 7 in JUFO-rank-3 journals), 4 book chapters, 20 full peer-reviewed papers in conference proceedings, 11 in workshop proceedings. I edited 4 workshop proceedings, and 3 journal special issues (Data Mining Knowledge Discovery, Machine Learning, and Evolving Systems journals, Springer).

All publications after PhD are without the thesis supervisor, and with many collaborators worldwide. More than half of the publications are first-author publications, and I have several single-author publications.

My Google Scholar citation count is 651, h-index is 13, and i10-index is 19.

Positions of scientific expertise

Guest Editor

2014–2015	Journal Track Chair for ECMLPKDD conference, and Guest Editor for Machine Learning journal, and Data Mining and Knowledge Discovery journal (both Springer)
2012	Guest Editor for Evolving Systems journal (Springer)

Reviewer for funding

2015	Reviewer for the National Science Centre, Poland
2013	Reviewer for the Austrian Science Fund (FWF)
2012	Reviewer for the European Commission FET FP7 work program
2012 – 2014	Reviewer for the Annual Best Dissertation Awards in Lithuania

Reviewer for journals (recently, 2011–2015)

Data Mining and Knowledge Discovery (Springer), Machine Learning (Springer), Journal of Machine Learning Research, IEEE Transactions on Knowledge Discovery from data, IEEE Transactions on Neural

Networks and learning systems, IEEE Transactions on Systems, Man, and Cybernetics, Part B: Cybernetics, Knowledge and Information Systems (Springer), Pattern Recognition (Elsevier), Neurocomputing (Elsevier), Information Sciences (Elsevier), Information Systems (Elsevier), Evolving Systems (Springer), Journal of Intelligent Information Systems (Springer), Artificial Intelligence and Law (Springer), Computational Statistics and Data Analysis (Elsevier), Intelligent Systems in Accounting, Finance and Management (Wiley), International Journal of Tourism Research (Wiley), IEEE Transactions on Learning Technologies

Program Committee member (recently, 2011–2015)

ECMLPKDD'14, CBMS'14, IVUS'14, IDA'14, DS'14, MUD@EDBT/ICDT'14, ILND@ESANN'14, ECMLPKDD'13, IJCAI'13, IVUS'13, PROMAMEDS'13@CBMS, SAC'13 - Data Streams, ECMLP-KDD'12, FSKD'12, HAIS'12, ICPRAM'12, PRICAI'12, IID'12@ECMLPKDD, MCDS'12@ADBIS, MMAML'12@ACIIDS, PROMAMEDS'12@CBMS, SAC'12-Data Streams, SDAD'12@ECMLPKDD, CIDUE'11, ECMLPKDD'11, FSKD'11, HAIS'11, IJCAI'11, ISDA'11, SAC'11-Data Streams

International activities

Long research visits

2012	Germany	Evonik Industries	4 months
2011	New Zealand	University of Waikato	3 months*
2009	The Netherlands	TU Eindhoven	4 months*
2009	Finland	Helsinki University of Technology	3 months
2008	UK	Bangor University	3 months

* means funded by the host institution

Short research visits

2015	Austria	European Union Agency for Fundamental Rights	5 days
2014	Portugal	University of Porto	3 days*
2013	Saudi Arabia	King Abdullah University of Science and Technology	6 days*
2012	Germany	University of Magdeburg	2 days
2012	Portugal	University of Porto	6 days*
2012	Germany	University of Konstanz	2 days*
2011	Belgium	KU Leuven	1 day
2011	Spain	Universitat Politecnica de Catalunya	3 days*
2011	UK	Bangor University	2 days
2011	UK	The University of Birmingham	1 day*

Workshop organization

2013	Co-Chair	RealStream workshop at ECMLPKDD'14, Czech Republic
2012	Co-Chair	DPADM workshop at ICDM'12, Belgium
2011	Co-Chair	HCDAIS-2 workshop ICDM'11, Canada
2011	Co-Organizer	INFER Workshop at Bournemouth University, UK
2010	Co-Chair	HCDAIS workshop at ECMLPKDD'10, Spain
2010	Co-Organiser	DHDHD workshop at TU Eindhoven, The Netherlands

Tutorials given

2012	Advanced Topics in Data Stream Mining at ECMLPKDD'12, UK
2011	Handling Concept Drift: Importance, Challenges and Solutions at PAKDD'11, China
2010	Guest speaker at the tutorial on Learning from Evolving data at ECMLPKDD'10

Scope and management of external research funding and projects

Managing large research projects

2011–2013   Research Task Leader for INFER.eu - EC funded project within the Marie Curie Industry IAPP

Obtaining funding

2013–now	TrafficSense - funded by Aalto Energy Efficiency program	1 mEUR
	Participated in preparing the proposal, and participating in the project as a researcher	
2011–2013	PhD supervision grant funded by Bournemouth University	36 kGBP
	Took a lead in preparing the proposal (co-PI), acted as the 2nd PhD supervisor	
2011–2014	CAPA - funded by The Netherlands Organization for Scientific Research (NWO)	350 kEUR
	Took a lead in preparing the proposal, participated as a researcher	
2006–2010	various personal stipends and travel grants during my PhD studies	18 kEUR

National and international research collaboration

I have worked and coauthored research papers with 40+ national and international collaborators.

The main long-term research collaborators from outside of my employment institutions are:
Prof. Mykola Pechenizkiy (TU Eindhoven, The Netherlands), Prof. Joao Gama (University of Porto, Portugal), Dr. Albert Bifet (Baidu Research, China), Prof. Bernhard Pfahringer and Prof. Geoff Holmes (University of Waikato, New Zealand) - on data streams, adaptive learning and change detection;
Prof. Toon Calders (Universite Libre de Bruxelles, Belgium) and Prof. Faisal Kamiran (Information Technology University, Pakistan) - on discrimination aware data mining; prof. Tomas Krilavicius (Vytautas Magnus University, Lithuania) - on data mining applications.

Competencies in applying research findings

About 1/4 of my publication are in applied data analysis research in various domains, such as traffic analysis, computational forest science, healthcare, chemical engineering, computational paleoecology, energy, and electrical engineering. I have coauthored research publications with practitioners from the following institutions: Evonik Industries, Germany (chemical industry), Philips Research, The Netherlands (consumer electronics), Rubedo systems, Lithuania (engineering), Yandex Research, Russia (on transportation planning), and Hospital of Lithuanian University of Health Sciences Kauno Klinikos.

In 2012 I have worked for 4 months on a secondment (research visit) at Evonik Industries, Germany. We were working on a prototype for an adaptive predictive model for controlling chemical production processes.

I have participated in a working group for discovering voting anomalies in near-real-time (not retrospectively) in 2012 Lithuanian Parliamentary Elections.

Coordination of doctoral training or other participation in nationwide doctoral programmes

2014   I have prepared and taught a course "Data mining as a research method" at a doctoral school
Doctoral Program of School, Education, Society and Culture (SEDUCE), University of Helsinki

Number of postgraduate students

2015   co-supervisor of MSc thesis for Michael Mechenich at University of Helsinki   ongoing
2012   main supervisor of MSc thesis for Ridhi Gupta at Bournemouth University   completed

Number of supervised PhD dissertations

2011-2013   the 2nd supervisor (official) for Manuel Martin Salvador at Bournemouth University   ongoing
2011-2012   the 2nd supervisor (official) for Edward Apeh at Bournemouth University   completed

Experience as a dissertation pre-examiner and opponent

2015   PhD pre-examiner and defense committee member for J. Smailovic, Jozef Stefan Institute, Slovenia
2014   PhD pre-examiner ǎnd defense committee member for R. Sebastio, University of Porto, Portugal
2011   PhD defense committee member for F. Kamiran, TU Eindhoven, The Netherlands
2011   PhD transfer pre-examiner and committee member for M. Le, Bournemouth University, UK

3. Teaching qualifications

Teaching experience

I worked as a lecturer at Bournemouth University for two years (2011-2013), where I was involved in a wide rage of teaching activities. I've solely designed, prepared and taught a Data Mining course (10 ECTS credits, 50 students). I've taught labs for Data Management course (10 ECTS credits, 170 students), and solely marked assignments and and exams for this course. I have supervised several Bachelor and one Master thesis, and I have evaluated a number of theses. I have participated in designing a new Masters programme on Applied Data Analytics.

Courses prepared and taught

2015	Data mining methods in palaeontology at University of Helsinki	4 hours
2014	Data mining as a research method at University of Helsinki	6 hours
2011–2012	Data mining at Bournemouth University	10 ECTS credits
2007–2009	Internal courses on credit analysis at Swedbank, Lithuania	

Labs taught

2012	Data management at Bournemouth University	10 ECTS credits, 3 groups
2012	Data mining at Bournemouth University	10 ECTS credits, 2 groups
2005	Applied informatics at Vilnius University	6 ECTS credits, 2 groups
2005	Informatics at Vilnius University	4.5 ECTS credits, 1 group
2005	Data base management systems at Vilnius University	6 ECTS credits, 1 group
2001	Statistics at SSE Riga	4.5 ECTS credits, 1 group

PhD and Master thesis supervision

2015	MSc thesis co-supervisor for Michael Mechenich at University of Helsinki	ongoing
2011-2013	PhD thesis 2nd supervisor for Manuel Martin Salvador at Bournemouth University	ongoing
2011-2012	PhD thesis 2nd supervisor for Edward Apeh at Bournemouth University	completed
2012	MSc thesis supervisor for Ridhi Gupta at Bournemouth University	completed

Pedagogical training

2012	Certificate of Doctoral Supervision	2 days training at Bournemouth University
2008	Practical Aspects of Teaching Adults	2 days training at Swedbank
2005	Informatics Education (Masters course)	9 ECTS credits

Ability to produce teaching materials

I have produced teaching materials for all the courses that I have taught at universities and industry (banking). In the labs I used materials produced by course teachers, except for Data mining lab at Bournemouth University, which was part of the course that I prepared myself, hence, I also prepared the labs. Some of my data mining materials have been used (with my permission) for teaching at University of Reading, UK.

In addition, I have prepared and taught (with my collaborators) three tutorials at international conferences.

Teaching philosophy

My main teaching philosophy is that students need to understand a big picture. When teaching, I try to emphasize in what context methods under consideration are applied, how they relate to each other, what are their strengths and limitations. In addition, I think that in a modern age of information it is very important to encourage students to look for information beyond materials given in the lectures or textbooks. In addition to content knowledge, students need to strengthen their skills for quickly finding and filtering relevant information, and judging about its quality.

Details of methods are likely to be forgotten after a course, but if students understand the big picture, they can always look up missing details. Knowing the principles they can also use existing tools in a right way.

Due to the same reason (big picture) I prefer to give open book exams that require to apply knowledge, instead of closed book exams that require to reproduce knowledge.

Furthermore, I think that it is important to have an iterative practical assignment when possible, instead of first learn everything then do approach I try to design assignments in such a way that students need to start early. As an example, I have given a data mining competition (I hosted it on Kaggle) as a practical assignment, where students had to submit solutions throughout the course. This was an effective and enjoyable way to learn for the students (got very positive feedback).

Publications

A Peer-reviewed scientific articles

A1 Original scientific article

1. **I. Žliobaitė**, A. Bifet, J. Read, B. Pfahringer, and G. Holmes. Evaluation methods and decision theory for classification of streaming data with temporal dependence. *Machine Learning* **98**(3) (2015), 455–482 **[JUFO 3]**.

2. **I. Žliobaitė**, M. Budka, and F. Stahl. Towards cost-sensitive adaptation: when is it worth updating your predictive model? *Neurocomputing* **150**(A) (2015), 240–249 **[JUFO 2]**.

3. **I. Žliobaitė** and J. Hollmén. Optimizing regression models for data streams with missing values. *Machine Learning* **99**(1) (2015), 47–73 **[JUFO 3]**.

4. R. P. J. Ch. Bose, W. M. P. van der Aalst, **I. Žliobaitė**, and M. Pechenizkiy. Dealing with Concept Drifts in Process Mining. *IEEE Trans. on Neural Networks and Learning Systems* **25**(1) (2014), 154–171 **[JUFO 3]**.

5. G. Krempl, **I. Žliobaitė**, D. Brzezinski, E. Hüllermeier, M. Last, V. Lemaire, T. Noack, A. Shaker, S. Sievi, M. Spiliopoulou, and J. Stefanowski. Open challenges for data stream mining research. *SIGKDD Explorations* **16**(1) (2014), 1–10.

6. **I. Žliobaitė**. Controlled Permutations for Testing Adaptive Learning Models. *Knowledge and Information Systems* **39**(3) (2014), 565–578 **[JUFO 2]**.

7. **I. Žliobaitė**, A. Bifet, B. Pfahringer, and G. Holmes. Active Learning with Drifting Streaming Data. *IEEE Trans. on Neural Networks and Learning Systems* **25**(1) (2014), 27–39 **[JUFO 3]**.

8. **I. Žliobaitė** and B. Gabrys. Adaptive Preprocessing for Streaming Data. *IEEE Trans. on Knowledge and Data Engineering* **26**(2) (2014), 309–321 **[JUFO 3]**.

9. **I. Žliobaitė**, J. Hollmén, and H. Junninen. Regression models tolerant to massively missing data: a case study in solar radiation nowcasting. *Atmospheric Measurement Techniques* **7** (2014), 4387–4399 **[JUFO 1]**.

10. **I. Žliobaitė**, J. Hollmén, L. Koskinen, and J. Teittinen. Towards hardware-driven design of low-energy algorithms for data analysis. *SIGMOD Record* **43**(4) (2014), 15–20 **[JUFO 1]**.

11. H. H. Ang, V. Gopalkrishnan, **I. Žliobaitė**, M. Pechenizkiy, and S. C. H. Hoi. Predictive Handling of Asynchronous Concept Drifts in Distributed Environments. *IEEE Trans. on Knowledge and Data Engineering* **25**(10) (2013), 2343–2355 **[JUFO 3]**.

12. F. Kamiran, **I. Žliobaitė**, and T. Calders. Quantifying explainable discrimination and removing illegal discrimination in automated decision making. *Knowledge and Information Systems* **35**(3) (2013), 613–644 **[JUFO 2]**.

13. **I. Žliobaitė**, J. Bakker, and M. Pechenizkiy. Beating the baseline prediction in food sales: How intelligent an intelligent predictor is? *Expert Systems with Applications* **39**(1) (2012), 806–815 **[JUFO 1]**.

14. **I. Žliobaitė**, A. Bifet, M. Gaber, B. Gabrys, J. Gama, L. Minku, and K. Musial. Next challenges for adaptive learning systems. *SIGKDD Explorations* **14**(1) (2012), 48–55.

15. **I. Žliobaitė**. Combining similarity in time and space for training set formation under concept drift. *Intelligent Data Analysis* **15**(4) (2011), 589–611 **[JUFO 1]**.

16. M. Pechenizkiy, J. Bakker, **I. Žliobaitė**, A. Ivannikov, and T. Kärkkäinen. Online mass flow prediction in CFB boilers with explicit detection of sudden concept drift. *SIGKDD Explorations* **11**(2) (2010), 109–116.

17. L. Kuncheva and **I. Žliobaitė**. On the window size for classification in changing environments. *Intelligent Data Analysis* **13**(6) (2009), 861–872 **[JUFO 1]**.

A2 Review

18. J. Gama, **I. Žliobaitė**, A. Bifet, M. Pechenizkiy, and A. Bouchachia. A Survey on Concept Drift Adaptation. *ACM Computing Surveys* **46**(4) (2014), Article No. 44 **[JUFO 3]**.

A3 Contribution to book/other compilations

19. T. Calders and **I. Žliobaitė**. "Why Unbiased Computational Processes Can Lead to Discriminative Decision Procedures". In: *Discrimination and Privacy in the Information Society*. Ed. by B. Custers, T. Zarsky, B. Schermer, and T. Calders. Vol. 3. Springer, 2013, pp.43–57.

20. F. Kamiran and **I. Žliobaitė**. "Explainable and Non-explainable Discrimination in Classification". In: *Discrimination and Privacy in the Information Society*. Ed. by B. Custers, T. Zarsky, B. Schermer, and T. Calders. Vol. 3. Springer, 2012, pp.155–170.

21. **I. Žliobaitė**. "Three Data Partitioning Strategies for Building Local Classifiers". In: *Ensembles in Machine Learning Applications*. Ed. by O. Okun, G. Valentini, and M. Ré. Vol. 373. Springer, 2011, pp.233–250.

22. **I. Žliobaitė**. "Introduction of New Expert and Old Expert Retirement under Concept Drift". In: *Progress in Pattern Recognition*. Ed. by S. Singh and M. Singh. Vol. XIII. Springer, 2007, pp.64–74.

A5 Article in conference publication

23. M. Budka, M. Eastwood, B. Gabrys, P. Kadlec, M. Martin-Salvador, S. Schwan, A. Tsakonas, and **I. Žliobaitė**. From Sensor Readings to Predictions: on the Process of Developing Practical Soft Sensors. In: *Proc. of the 13th Int. Symposium on Intelligent Data Analysis*. IDA. 2014, pp.92–103 **[JUFO 1]**.

24. D. Ienco, B. Pfahringer, and **I. Žliobaitė**. High density-focused uncertainty sampling for active learning over evolving stream data. In: *Proc. of 3rd int. workshop on Big Data Mining*. JMLR W&CP 36. 2014, pp.133–148.

25. M. Martin-Salvador, B. Gabrys, and **I. Žliobaitė**. Online Detection of Shutdown Periods in Chemical Plants: A Case Study. In: *18th Int. Conf. in Knowledge Based and Intelligent Information and Engineering Systems*. KES. 2014, pp.580–588 **[JUFO 1]**.

26. **I. Žliobaitė** and J. Hollmén. Mobile Sensing Data for Urban Mobility Analysis: A Case Study in Preprocessing. In: *Proc. of Mining Urban Data workshop at EDBT/ICDT*. MUD. 2014, pp.309–314.

27. A. Bifet, J. Read, B. Pfahringer, G. Holmes, and **I. Žliobaitė**. CD-MOA: Change Detection Framework for Massive Online Analysis. In: *Proc. of the 12th Int. Symposium on Intelligent Data Analysis*. IDA. 2013, pp.92–103 **[JUFO 1]**.

28. A. Bifet, J. Read, **I. Žliobaitė**, B. Pfahringer, and G. Holmes. Pitfalls in benchmarking data stream classification and how to avoid them. In: *Proc. of the European Conf. on Machine Learning and Principles and Practice of Knowledge Discovery in Databases*. ECMLPKDD. 2013, pp.465–479 **[JUFO 1]**.

29. D. Ienco, A. Bifet, **I. Žliobaitė**, and B. Pfahringer. Clustering Based Active Learning for Evolving Data Streams. In: *Proc. of the 16th Int. Conf. on Discovery Science*. 2013, pp.79–93 **[JUFO 1]**.

30. **I. Žliobaitė** and J. Hollmén. Fault tolerant regression for sensor data. In: *Proc. of the European Conf. on Machine Learning and Principles and Practice of Knowledge Discovery in Databases*. ECMLPKDD. 2013, pp.449–464 **[JUFO 1]**.

31. E. Apeh, **I. Žliobaitė**, M. Pechenizkiy, and B. Gabrys. Predicting Customer Profiles Based on Trans.: a Case Study in Food Sales. In: *Proc. of the 32nd Annual Int. Conf. of the British Computer Society's Specialist Group on Artificial Intelligence*. 2012, pp.213–218 **[JUFO 1]**.

32. R. P. Jagadeesh Chandra Bose, Wil M. P. van der Aalst, **I. Žliobaitė**, and M. Pechenizkiy. Handling Concept Drift in Process Mining. In: *Proc. of the 23rd Int. Conf. on Advanced Information Systems Engineering*. CAISE. 2011, pp.391–405 **[JUFO 1]**.

33. O. Mazhelis, **I. Žliobaitė**, and M. Pechenizkiy. Context-Aware Personal Route Recognition. In: *Proc. of the Int. Conf. on Discovery Science*. DS. 2011, pp.221–235 **[JUFO 1]**.

34. **I. Žliobaitė**. Controlled Permutations for Testing Adaptive Classifiers. In: *Proc. of the 14th Int. Conf. on Discovery Science*. DS. 2011, pp.365–379 **[JUFO 1]**.

35. **I. Žliobaitė**. Identifying Hidden Contexts in Classification. In: *Proc. of the 15th Pacific-Asia Conf. on Advances in Knowledge Discovery and Data Mining*. PAKDD. 2011, pp.277–288 **[JUFO 1]**.

36. **I. Žliobaitė**, A. Bifet, G. Holmes, and B. Pfahringer. MOA Concept Drift Active Learning Strategies for Streaming Data. In: *Proc. of the 2nd Workshop on Applications of Pattern Analysis*. Vol. 17. JMLR W&CP 17. 2011, pp.48–55.

37. **I. Žliobaitė**, A. Bifet, B. Pfahringer, and G. Holmes. Active Learning with Evolving Streaming Data. In: *Proc. of European Conf. on Machine Learning and Knowledge Discovery in Databases*. ECMLPKDD. 2011, pp.597–612 **[JUFO 1]**.

38. **I. Žliobaitė**, F. Kamiran, and T. Calders. Handling Conditional Discrimination. In: *Proc. of the 11th IEEE Int. Conf. on Data Mining*. ICDM. 2011, pp.992–1001 **[JUFO 2]**.

39. M. Pechenizkiy, E. Vasilyeva, **I. Žliobaitė**, A. Tesanovic, and G. Manev. Heart failure hospitalization prediction in remote patient management systems. In: *Proc. of the 23rd IEEE Int. Symp. on Computer-Based Medical Systems*. CBMS. 2010, pp.44–49 **[JUFO 1]**.

40. **I. Žliobaitė**. Change with Delayed Labeling: When is it Detectable? In: *Workshop Proc. of the IEEE Int. Conf. on Data Mining*. ICDMW. 2010, pp.843–850.

41. **I. Žliobaitė**. Three Data Partitioning Strategies for Building Local Classifiers: an experiment. In: *Proc. of the workshop on Supervised and Unsupervised Ensemble Methods and their Applications at ECMLPKDD'10*. SUEMA. 2010, pp.151–160.

42. **I. Žliobaitė** and M. Pechenizkiy. Learning with Actionable Attributes: Attention – Boundary Cases! In: *Workshop Proc. of the IEEE Int. Conf. on Data Mining*. ICDMW. 2010, pp.1021–1028.

43. J. Bakker, M. Pechenizkiy, **I. Žliobaitė**, A. Ivannikov, and T. Kärkkäinen. Handling outliers and concept drift in online mass flow prediction in CFB boilers. In: *Proc. of the 3rd Int. Workshop on Knowledge Discovery from Sensor Data*. SensorKDD. 2009, pp.13–22.

44. **I. Žliobaitė**. Combining Time and Space Similarity for Small Size Learning under Concept Drift. In: *Proc. of the 18th Int. Symp. on Foundations of Intelligent Syst.* 2009, pp.412–421.

45. **I. Žliobaitė**, J. Bakker, and M. Pechenizkiy. OMFP: An Approach for Online Mass Flow Prediction in CFB Boilers. In: *Proc. of the 12th Int. Conf. on Discovery Science*. DS. 2009, pp.272–286 **[JUFO 1]**.

46. **I. Žliobaitė**, J. Bakker, and M. Pechenizkiy. Towards Context Aware Food Sales Prediction. In: *Workshop Proc. of the IEEE Int, Conf. on Data Mining*. ICDMW. 2009, pp.94–99.

47. **I. Žliobaitė** and L. Kuncheva. Determining the Training Window for Small Sample Size Classification with Concept Drift. In: *Workshop Proc. of the IEEE Int. Conf. on Data Mining*. ICDMW. 2009, pp.447–452.

48. **I. Žliobaitė**. Expected Classification Error of the Euclidean Linear Classifier under Sudden Concept Drift. In: *Proc. of the 5th Int. Conf. on Fuzzy Systems and Knowledge Discovery*. FSKD. 2008, pp.29–33.

49. **I. Žliobaitė**. Ensemble Learning for Concept Drift Handling - the Role of New Expert. In: *Poster Proc. of 5th Int. Conf. on Machine Learning and Data Mining in Pattern Recognition*. MLDM. 2007, pp.251–260.

50. Š. Raudys and **I. Žliobaitė**. The Multi-Agent System for Prediction of Financial Time Series. In: *Proc. of the 8th Int. Conf. on Artificial Intelligence and Soft Computing*. ICAISC. 2006, pp.653–662.

51. Š. Raudys and **I. Žliobaitė**. Prediction of Commodity Prices in Rapidly Changing Environments. In: *Proc. of the 3rd Int. Conf. on Advances in Pattern Recognition, Pattern Recognition and Data Mining*. ICAPR. 2005, pp.154–163.

52. author = **I. Žliobaitė**, M. Mathioudakis, T. Lehtiniemi, P. Parviainen, and T. Janhunen. Accessibility by public transport predicts residential real estate prices: a case study in Helsinki region. In: *Proc. of the 2nd workshop on Mining Urban Data*. MUD2.

53. **I. Žliobaitė**. On the relation between accuracy and fairness in binary classification. In: *Proc. of the 2nd workshop on Fairness, Accountability, and Transparency in Machine Learning at ICML'15*. FATML.

B Non-peer-reviewed scientific writings

B3 Article in conference proceedings

54. T. Krilavičius, R. Užupytė, **I. Žliobaitė**, and H. Simonavičius. Correlation of external markers and functional targets for respiration compensation in radiotherapy. In: *Medical Physics in the Baltic States*. 2013, pp.42–45.

55. M. Pechenizkiy and **I. Žliobaitė**. Handling concept drift in medical applications: Importance, challenges and solutions. In: *Proc. of the 23rd IEEE Int. Symp. on Computer-Based Medical Systems*. CBMS. 2010, pp.5.

56. **I. Žliobaitė**, J. Bakker, and M. Pechenizkiy. Context Aware Sales Prediction. In: *Proc. of the 21st Benelux Conf. on Artificial Intelligence*. BNAIC. 2009, pp.449–450.

57. L. Kuncheva and **I. Žliobaitė**. Linear Discriminant Classifier (LDC) for Streaming Data with Concept Drift. In: *Proc. of the 2008 Joint IAPR Int. Workshop on Structural, Syntactic, and Statistical Pattern Recognition*. SSPR & SPR. Invited Talk. 2008, pp.4.

C Scientific books (monographs)

C2 Edited proceedings and editorials

58. G. Krempl, **I. Žliobaitė**, Y. Wang, and G. Forman, eds. *Proceedings of the 1st Int. Workshop on Real-World Challenges for Data Stream Mining in conjunction with ECMLPKDD*. RealStream. 2013.

59. M. Pechenizkiy and **I. Žliobaitė**. Introduction to the special issue on handling concept drift in adaptive information systems. *Evolving Systems* **4**(1) (2013), 1–2.

60. T. Calders and **I. Žliobaitė**. Preface to the Int. Workshop on Discrimination and Privacy-Aware Data Mining – DPADM 2012. In: *Workshop Proc. of the 12th IEEE Int. Conf. on Data Mining*. 2012.

61. L. Khan, M. Pechenizkiy, and **I. Žliobaitė**. Preface to the Handling Concept Drift and Reoccurring Contexts in Adaptive Information Systems Workshop. In: *Workshop Proc. of the 11th IEEE Int. Conf. on Data Mining*. 2011.

62. M. Pechenizkiy and I. Žliobaitė, eds. *Proc. of the 1st Int. Workshop on Handling Concept Drift in Adaptive Information Systems: Importance, Challenges and Solutions in conjunction with ECMLPKDD*. HaCDAIS. 2010.

G Thesis

G4 Doctoral Thesis, monography

63. **I. Žliobaitė**. "Adaptive Training Set Formation". PhD thesis. Vilnius University, 2010.