IEA/AIE 2018 Program

Long paper presentation: 25min (incl. 5 min for Q&A)
Short paper presentation (paper # ending with "s"): 15min (incl. 5 min for Q&A)
Invited talk: 1 hour (incl. 15min for Q&A)

All conference rooms are equiped with a data projector and a PC
A Sessions will be in EV2.260 room
B Sessions will be in EV3.309 room
C Sessions will be in EV1.162 room
Opening/Closing sessions, tutorial and keynote talks will be in EV2.260

Monday, June 25, 2018

14:00-17:30   Tutorials (incl. 30min break)

Tutorial
Accelerating Data Analytics using Hadoop, Spark, and TensorFlow **Behrouz Far and Emad Mohamed**

Participants at the tutorial will need to present themselves at the EV Security desk with a valid piece of ID and sign the

registration entrance.binder at their arrival. The only entrance that will be available to access the building is

the Sainte-Catherine entrance.

Tuesday, June 26, 2018

08:30-9:00 Welcoming Session - Conference Opening

9:00-10:30 Parallel Session 1

Session 1.A Data Mining and Knoledge Discovery I (chair: Bing Zhou)	Session 1.B Constraint Solving and Optimization (chair: Geoff Harris)	Session 1.C Natural Language Processing (chair: Debora Nozza)
5 19 20 8s	60 70 104 28s	12 64 83 31s

10:30-11:00 Coffee break

11:00-12:30   Parallel Session 2

Session 2.A Data Mining and Knoledge Discovery II (chair: Pawan Lingras)	Session 2.B Evolutionary Computation (chair: Beatrice Ombuki-Berman)	Session 2.C Knowledge Representation (chair: Iren Todorova Valova)
32 85 95 49s	39 78 96 41s	97 79 67 21s

12:30-14:00   Lunch break

14:00-15:00   Session 3 - Keynote Speaker: Guy Lapalme
(chair: Marie-Jean Meurs)
Question-Answering Systems: challenges and perspectives

15:00-15:30   Coffee break

15:30-17:00   Parallel Session 3

Session 3.A Data Mining and Knoledge Discovery III (chair: Philippe Fournier-Viger)	Session 3.B Multi-Agent Systems (chair: Samira Sadaoui)	Session 3.C Meta-heuristics I (chair: Stephen Chen)
100 73s 75s 82s	9 61 81s 89s	11 45 46s 54a

18:00-21:00   Reception

Wednesday, June 27, 2018

9:00-10:30 Parallel Session 4

Session 4.A Machine Learning I (chair: Salem Chakhar)	Session 4.B Expert Systems and Robotics (chair: Kishan Mehrotra)	Session 4.C Planning, Scheduling & Spatial Reasoning (chair: Malek Mouhoub)
3 18 7s 26a	23 94 98 10s	17 74 50 16s

10:30-11:00 Coffee break

11:00-12:30 Parallel Session 5

Session 5.A Machine Learning II (chair: Müslüm Atas)	Session 5.B Special Track Information Extraction I (chair: Ismail Biskri)	Session 5.C Meta-heuristics II (chair: Nadia Nedjah)
33 62 24s 84a	88 109 110	86 87 55s 103s

12:30-14:00 Lunch break

14:00-15:00 Session 7 - Keynote speaker: Behrouz Far
(chair: Samira Sadaoui)
Technologies and Prospects of Autonomous and Connected Vehicles

15:00-15:30 Coffee break

15:30-17:00 Parallel Session 6

Session 6.A Neural Networks (chair: Prosenjit Chatterjee)	Session 6.B Special Track: Information Extraction II (chair: Ismail Biskri)	Session 6.C Special Track Privacy and Security I (chair: Zaman ANK)
15 65 30s 51s	122 139 141	106 118 119s

18:00-23:00 Awards Banquet: Pointe -a- Callière
350 Place Royale, Vieux Montréal (Québec) H2y 3y5

Thursday, June 28, 2018

9:00-10:30 Paralle Session 7

Session 7.A Rough Sets (chair: Cory Butz)	Session 7.B Special Track Law and Justice I (chair: Sébastien Gambs)	Session 7.C Special Track Privacy and Security II (chair: Zaman ANK)
13 57 25s 66s	99 136 140	131 132 133s

10:30-11:00 Coffee break

10:00-11:00 Session 10 - Keynote Speaker: Wahab Hamou-Lhadj
(chair: Otmane Ait Mohamed)
On the Path towards Intelligent Logging Systems

12:30-14:00 Lunch

14:00-15:30 Paralle Session 8

Session 8.A Special Track IofT (chair: Abdelmalek Amine)	Session 8.B Special Track Law and Justice II (chair: Marie-Jean Meurs)	Session 8.C Special Track Privacy and Security III (chair: Zaman ANK)
126 130 116s	143 145	142 146 144s

15:30-16:00 Coffee break

16:00-16:30 Closing Remarks

Paper #	Title and Authors
3	Online Detection of Shill Bidding Fraud based on Machine Learning Techniques
	Swati Ganguly and Samira Sadaoui
5	Person Re-Identification using Masked Keypoints
	John Atkinson and Diego Reyes
7	Object detection in images based on homogeneous region segmentation
	Abdesalam Amrane, Abdelkrim Meziane and Nour El Houda Boulkrinat
8	A Comparison of Knee Strategies for Hierarchical Spatial Clustering
	Brian Ross
9	On Commitments Creation, Compliance and Violation
	Asma Moubaiddin and Nadim Obeid
10	A Probabilistic Model for Automobile Diagnosis System: Combining Bayesian Estimator and Expert Knowledge
	Malek Mouhoub and Mustakim Al Helal
11	Cuckoo Search via Lévy Flight applied to optimal Water Supply System Design
	Ricardo Soto, Broderick Crawford, Rodrigo Olivares, Carlos Castro, Pía Escárate and Steve Calderón
12	Auto-Detection of Safety Issues in Baby Products
	Graham Bleaney, Matthew Kuzyk, Julian Man, Hossein Mayanloo and Hamid Tizhoosh
13	A Game-theoretic Rough Set Approach for Handling Missing data in Clustering
	Nouman Azam, Jingtao Yao and Mohammad Khan
15	The Effect of Sentiment on Stock Price Prediction
	Bruce Vanstone, Adrian Gepp and Geoff Harris
16	Automatically Generating and Solving Eternity II Style Puzzles
	Geoff Harris, Bruce Vanstone and Adrian Gepp
17	A Spatio-Semantic Model for Agricultural Environments and Machines
	Henning Deeken, Thomas Wiemann and Joachim Hertzberg
18	Efficient Examination of Soil Bacteria using Probabilistic Graphical Models
	Cory Butz, Andre Dos Santos, Jhonatan Oliveira and John Stavrinides
19	Knowledge Discovery Process for Detection of Spatial Outliers
	Giovanni Daián Rottoli, Hernán Merlino and Ramon Garcia-Martinez
20	Text Modeling Using Multinomial Scaled Dirichlet Distributions
	Nuha Zamzami and Nizar Bouguila
21	Transformation between CP-net and CPC-net
	Sultan Ahmed and Malek Mouhoub
23	Joint Angle Error Reduction for Humanoid Robots using Dynamics Learning Tree
	Ryo Hirai, Manabu Gouko and Chyon Hae Kim

24	Predicting Success of a Mobile Game: A Proposed Data Analytics-Based Prediction Model
	Khaled Alomari, Cornelius Ncube and Khaled Shaalan
25	Fuzzy Clustering Ensemble for Prioritized Sampling based on Average and Rough Patterns
	Matt Triff, Ilya Pavlovski, Zhixing Liu, Lori-Anne Morgan and Pawan Lingras
26	Optimization of Just-in-Time Adaptive Interventions Using Reinforcement Learning
	Suat Gonul, Tuncay Namli, Mert Baskaya, A. Anil Sinaci, Ahmet Cosar and Ismail Hakki Toroslu
28	On Using ``Stochastic Learning on the Line'' to Design Novel Distance Estimation Methods
	Jessica Havelock, John Oommen and Ole-Christoffer Granmo
30	A Quantitative Analysis Decision System Based on Deep Learning and NSGA-II for FX Portfolio Prediction
	Hua Shen and Xun Liang
31	Solving Simple Arithmetic Word Problems Precisely with Schemas
	Sowmya S Sundaram and Savitha Sam Abraham
32	Credit Card Default Prediction as a Classification Problem
	Makram Soui, Salima Smiti, Salma Bribech and Ines Gasmi
33	EP-Based Infinite Inverted Dirichlet Mixture Models Learning: Application to Image Spam Detection
	Wentao Fan, Sami Bourouis, Nizar Bouguila, Fahd Aldosari, Hassen Sallay and K. M. Jamil Khayyat
39	Lazy Conflict Detection with Genetic Algorithms
	Christoph Uran and Alexander Felfernig
41	A high winning opportunities intraday volatility trading method using Artificial Immune Systems
	Theo Raymond C.M. Chan, Kwun-Wing Chan, Steve Luk and Chun-Ho Lee
45	Performance Evaluation of Particles Coding in Particle Swarm Optimization with Self-Adaptive Parameters for Flexible Job Shop Scheduling Problem
	Zarrouk Rim and Abderrazak Jemai
46	Simulation-Based Comparison of P-Metaheuristics for FJSP with and without Fuzzy Processing Time
	Zarrouk Rim, Imed Eddine Bennour and Abderrazak Jemai
49	Multiple Water-level Seawater Temperature Prediction Method for Marine Aquaculture
	Takanobu Otsuka, Yuji Kitazawa and Takayuki Ito
50	Energy-conserving risk-aware data collection using Ensemble Navigation Network
	Zhi Xing and Jae Oh
51	Towards Machine Learning Based IoT Intrusion Detection Service
	Tagyaldeen Mohamed, Takanobu Otsuka and Takayuki Ito
54	Resolving the Manufacturing Cell Design Problem via Hunting Search
	Ricardo Soto, Broderick Crawford, Rodrigo Olivares and Nicolás Pacheco
55	Solving the MCDP using a League Championship Algorithm
	Ricardo Soto, Broderick Crawford, Rodrigo Olivares and Jaime Romero
57	Scalable Implementations of Rough Set Algorithms: A Survey
	Bing Zhou
60	A method for the online construction of the set of states of a Markov Decision Process using Answer Set Programming
	Leonardo Anjoletto Ferreira, Reinaldo A. C. Bianchi, Paulo E. Santos and Ramon Lopez De Mantaras
61	Online Learning for Patrolling Robots against Active Adversarial Attackers
	Mahmuda Rahman and Jae Oh

62	Bayesian Learning of Finite Asymmetric Gaussian Mixtures
	Shuai Fu and Nizar Bouguila
64	Conversation Envisioning Framework for Situated Conversation
	Maryam Sadat Mirzaei, Qiang Zhang, Stef van der Struijk and Toyoaki Nishida
65	RFedRNN: An End-to-End Recurrent Neural Network for Radio Frequency Path Fingerprinting
	Siqi Bai, Mingjiang Yan, Yongjie Luo and Qun Wan
66	Detecting Overlapping Communities in Social Networks with Voronoi and Tolerance Rough Sets
	Kushagra Trivedi and Sheela Ramanna
67	Socially-Aware Recommendation for Over-Constrained Problems
	Muesluem Atas, Thi Ngoc Trang Tran, Alexander Felfernig and Ralph Samer
70	Hardware/Software Co-design for Template Matching using Cuckoo Search Optimization
	Alexandre Cardoso, Nadia Nedjah and Luiza De Macedo Mourelle
73	Investigating Effectiveness of Linguistic Features Based on Speech Recognition for Storytelling Skill Assessment
	Shogo Okada and Kazunori Komatani
74	Chromosome Mutation vs. Gene Mutation in evolutive approaches for solving the Resource-Constrained Project Scheduling Problem (RCPSP)
	Daniel Morillo, Federico Barber and Miiguel A. Salido
75	Visual Analytics Based Authorship discrimination Using Gaussian Mixture Models and Self Organising Maps: Application on Quran and Hadith
	Halim Sayoud
78	An Algorithm for Combinatorial Double Auctions based on Cooperative Coevolution of Particle Swarms
	Fu-Shiung Hsieh and Yi-Hong Guo
79	Formalizing arguments from cause-effect rules
	Karima Sedki
81	Perception of Fairness in Culturally Dependent Behavior: Comparison of Social Communication in Simulated Crowds between Thai and Japanese Cultures
	Sutasinee Thovuttikul, Yoshimasa Ohmoto and Toyoaki Nishida
82	An optimization approach based on collective correlation coefficient for biomarker extraction in the classification of Alzheimer's Disease
	Dan Pan, An Zeng, Jian-Zhong Li, Xiao-Wei Song, Shu-Xia Wang and for the Alzheimer's Disease Neuroimaging Initiative
83	A Graph Based Approach to Sentiment Lexicon Expansion
	Adam Westgate and Iren Valova
84	Substation Signal Matching with a Token Classifier
	Qin Wang, Sandro Schönborn, Yvonne-Anne Pignolet, Theo Widmer and Carsten Franke
85	Interactive Discovery of Statistically Significant Itemsets
	Philippe Fournier-Viger, Xiang Li, Jie Yao and Jerry Chun-Wei Lin
86	Improved Exploration and Exploitation in Particle Swarm Optimization
	Dania Tamayo-Vera, Stephen Chen, Antonio Bolufé Röhler, James Montgomery and Tim Hendtlass
87	Optimizing Scale-Free Network Robustness with the Great Deluge Algorithm
	James Paterson and Beatrice Ombuki-Berman
88	Adapting Named Entity Types to New Ontologies in a Microblogging Environment
	Elisabetta Fersini, Pikakshi Manchanda, Enza Messina, Debora Nozza and Matteo Palmonari
89	Simultaneous Exploration and Harvesting in Multi-Robot Foraging
	Zilong Jiao and Jae Oh

94	Closed-Loop Push Recovery for an Inexpensive Humanoid Robot
	Amirhossein Hosseinmemar, John Anderson, Jacky Baltes, Meng Cheng Lau, Chi Fung Lun and Ziang Wang
95	Sampling Community Structure in Dynamic Social Networks
	Humphrey Mensah and Sucheta Soundarajan
96	Partition crossover evolutionary algorithm for the team orienteering problem with time windows
	Ibtihel Ghobber, Takwa Tlili and Saoussen Krichen
97	Merging guaranteed possibilistic bases to rank IDS alerts
	Lydia Bouzar-Benlabiod, Meziani Lila, Zakaria Mellal and Nacer-Eddine Rim
98	Robot Magic: A Robust Interactive Entertainment Robot
	Kyle J. Morris, Vladyslav Samonin, John Anderson, Meng Cheng Lau and Jacky Baltes
99	Case law analysis with machine learning technique in Brazilian Court
	Rhuan Paulo L. Barros, André Peres, Fabiana Lorenzi, Leandro Krug Wives and Etiene Hubert Da Silva Jaccottet
100	Online Anomaly Detection using Random Forest
	Zhiruo Zhao, Kishan Mehrotra and Chilukuri Mohan
103	ACO-based Measure for SYN Flooding over Mobile Data Connectivity
	Joseph C. Mushi, Mussa Kissaka and Kosmas Kapis
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110	Efficient versus Accurate Algorithms for Computing A Semantic Logic-based Similarity Measure
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	Ayman A. Atallah, Ghaith Bany Hamad and Otmane Ait Mohamed
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	Janelle Mason, Christopher Kelley, Bisoye Olaleye, Albert Esterline and Kaushik Roy
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	Prosenjit Chatterjee and Kaushik Roy

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	Michelle Cumyn, Michèle Hudon, Sabine Mas and Günter Reiner
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	Musab Ghadi, Lamri Laouamer, Laurent Nana, Anca Pascu and Ismaïl Biskri
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	Marc Queudot and Marie-Jean Meurs
144	Data Anonymization for Deep Learning
	Ayahiko Niimi
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	Sara Zacharie, Briand Antoine, Ludovic Jean-Louis and Marie-Jean Meurs
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	A. N. K. Zaman, Charlie Obimbo and Rozita Dara