

Winter 2020, Comp-8390 (60-539) Seminar Topic List from ACM KDD 2020, ACM SIGMOD 2020 and VLDB 2020 conference proceedings or some earlier articles in the Most cited list.

Please, select your seminar paper (equivalent to a full paper of 8 to 15 pages), obtain it from the web and make copies available to your seminar grading group. Use the provided information for around 12 people in the seminar grading group that will be grading your seminar so you can make copies of your paper for them. There may be only one seminar grading group if not more than 10 students in class. You can select more than one paper to have equivalent of a full paper if you select papers with fewer pages.

Seminar papers from ACM KDD 2020 (listed in section A) and SIGMOD conference proceedings 2020 (listed in section B) can be obtained through the university of Windsor online ACM digital library: go to <http://ledy.uwindsor.ca>, click on Find Journal Articles and Research Tools, then by subject, Computer Science, click on ACM digital library, log on with your library card bar code or UWindsor userid and password, and look for proceedings, then look for ACM KDD or SIGMOD 2020, look for your seminar paper and print it. Papers from VLDB conference proceedings are listed in section C and can be downloaded directly through www.google.com or through <http://www.vldb.org/pvldb/vol10.html>.

A. Seminar Papers from ACM SIGKDD conference proceedings. Please, provide full particulars of the paper when picked. To download these papers, go to www.uwindsor.ca/ledy, click on “Journal Articles & Research Tools” and then “Computer Science”, go to “ACM digital library” and then Special Interest Groups(SIG). Then, search for SIGKDD or (KDD 18) to download the papers.

A. These papers are from the SigKDD Regular Paper Sessions

1. Octet: Online Catalog Taxonomy Enrichment with Self-Supervision
Yuning Mao profile image Yuning Mao, Tong Zhao profile image Tong Zhao, Andrey Kan profile image Andrey Kan, Chenwei Zhang profile image Chenwei Zhang, Xinluna Dong profile image Xin Luna Dong, + 2
August 2020, pp 2247–2257, <https://doi.org/10.1145/3394486.3403274>
2. TIMME: Twitter Ideology-detection via Multi-task Multi-relational Embedding
Zhiping Xiao profile image Zhiping Xiao, Weiping Song profile image Weiping Song, Haoyan Xu profile image Haoyan Xu, Zhicheng Ren profile image Zhicheng Ren, Yizhou Sun profile image Yizhou Sun
August 2020, pp 2258–2268, <https://doi.org/10.1145/3394486.3403275>
3. Knowing your FATE: Friendship, Action and Temporal Explanations for User Engagement Prediction on Social Apps

Xianfeng Tang profile imageXianfeng Tang, Yozen Liu profile imageYozen Liu, Neil Shah profile imageNeil Shah, Xiaolin Shi profile imageXiaolin Shi, Prasenjit Mitra profile imagePrasenjit Mitra, + 1
August 2020, pp 2269–2279, <https://doi.org/10.1145/3394486.3403276>.

4. Sub-Matrix Factorization for Real-Time Vote Prediction

Alexander Immer profile imageAlexander Immer, Victor Kristof profile imageVictor Kristof, Matthias Grossglauser profile imageMatthias Grossglauser, Patrick Thiran profile imagePatrick Thiran
August 2020, pp 2280–2290, <https://doi.org/10.1145/3394486.3403277>.

5. Temporal-Contextual Recommendation in Real-Time

Yifei Ma profile imageYifei Ma, Balakrishnan (Murali) Narayanaswamy profile imageBalakrishnan (Murali) Narayanaswamy, Haibin Lin profile imageHaibin Lin, Hao Ding profile imageHao Ding
August 2020, pp 2291–2299, <https://doi.org/10.1145/3394486.3403278>.

6. OptMatch: Optimized Matchmaking via Modeling the High-Order Interactions on the Arena

Linxia Gong profile imageLinxia Gong, Xiaochuan Feng profile imageXiaochuan Feng, Dezhi Ye profile imageDezhi Ye, Hao Li profile imageHao Li, Runze Wu profile imageRunze Wu, + 3
August 2020, pp 2300–2310, <https://doi.org/10.1145/3394486.3403279>.

7. PinnerSage: Multi-Modal User Embedding Framework for Recommendations at Pinterest

Aditya Pal profile imageAditya Pal, Chantat Eksombatchai profile imageChantat Eksombatchai, Yitong Zhou profile imageYitong Zhou, Bo Zhao profile imageBo Zhao, + 2
August 2020, pp 2311–2320, <https://doi.org/10.1145/3394486.3403280>.

8. Polestar: An Intelligent, Efficient and National-Wide Public Transportation Routing Engine

Hao Liu profile imageHao Liu, Ying Li profile imageYing Li, Yanjie Fu profile imageYanjie Fu, Huaibo Mei profile imageHuaibo Mei, Jingbo Zhou profile imageJingbo Zhou, Xu Ma profile imageXu Ma, Hui Xiong profile imageHui Xiong
August 2020, pp 2321–2329, <https://doi.org/10.1145/3394486.3403281>.

9. Context-Aware Attentive Knowledge Tracing

Aritra Ghosh profile imageAritra Ghosh, Neil Heffernan profile imageNeil Heffernan, Andrew S Lan profile imageAndrew S. Lan
August 2020, pp 2330–2339, <https://doi.org/10.1145/3394486.3403282>.

10. Predicting Individual Treatment Effects of Large-scale Team Competitions in a Ride-sharing Economy

Teng Ye profile imageTeng Ye, Wei Ai profile imageWei Ai, Lingyu Zhang profile imageLingyu Zhang, Ning Luo profile imageNing Luo, Lulu Zhang profile imageLulu Zhang, Jieping Ye profile imageJieping Ye, + 1
August 2020, pp 2368–2377, <https://doi.org/10.1145/3394486.3403286>.

11. Cellular Network Radio Propagation Modeling with Deep Convolutional Neural Networks

Xin Zhang profile imageXin Zhang, Xiujun Shu profile imageXiujun Shu, Bingwen Zhang profile imageBingwen Zhang, Jie Ren profile imageJie Ren, Lizhou Zhou profile imageLizhou Zhou, Xin Chen profile imageXin Chen
August 2020, pp 2378–2386, <https://doi.org/10.1145/3394486.3403287>.

12. Neural Input Search for Large Scale Recommendation Models

Manas R Joglekar profile imageManas R. Joglekar, Cong Li profile imageCong Li, Mei Chen profile imageMei Chen, Taibai Xu profile imageTaibai Xu, Xiaoming Wang profile imageXiaoming Wang, + 4
August 2020, pp 2387–2397. <https://doi.org/10.1145/3394486.3403288>.

13. Easy Perturbation EEG Algorithm for Spectral Importance (easyPEASI): A Simple Method to Identify Important Spectral Features of EEG in Deep Learning Models

David O Nahmias profile imageDavid O. Nahmias, Kimberly L Kontson profile imageKimberly L. Kontson
August 2020, pp 2398–2406, <https://doi.org/10.1145/3394486.3403289>.

14. Building Continuous Integration Services for Machine Learning

Bojan Karlaš profile imageBojan Karlaš, Matteo Interlandi profile imageMatteo Interlandi, Cédric Renggli profile imageCedric Renggli, Wentao Wu profile imageWentao Wu, Ce Zhang profile imageCe Zhang, + 5
August 2020, pp 2407–2415, <https://doi.org/10.1145/3394486.3403290>.

15. Learning to Cluster Documents into Workspaces Using Large Scale Activity Logs

Weize Kong profile imageWeize Kong, Michael Bendersky profile imageMichael Bendersky, Marc A. Najork profile imageMarc Najork, Brandon Vargo profile imageBrandon Vargo, Mike Colagrosso profile imageMike Colagrosso
August 2020, pp 2416–2424, <https://doi.org/10.1145/3394486.3403291>.

16. What is that Building?: An End-to-end System for Building Recognition from Streetside Images

Chiqun Zhang profile imageChiqun Zhang, Dragomir Yankov profile imageDragomir Yankov, Chunting Wu profile imageChun-Ting Wu, Simon Shapiro profile imageSimon Shapiro, + 2
August 2020, pp 2425–2433, <https://doi.org/10.1145/3394486.3403292>.

17. HetETA: Heterogeneous Information Network Embedding for Estimating Time of Arrival

Huiting Hong profile imageHuiting Hong, Yucheng Lin profile imageYucheng Lin, Xiaoqing Yang profile imageXiaoqing Yang, Zang Li profile imageZang Li, Kung Fu profile imageKung Fu, + 3
August 2020, pp 2444–2454, <https://doi.org/10.1145/3394486.3403294>.

18. Hubble: An Industrial System for Audience Expansion in Mobile Marketing
Chenyi Zhuang profile imageChenyi Zhuang, Ziqi Liu profile imageZiqi Liu, Zhiqiang Zhang profile imageZhiqiang Zhang, Yize Tan profile imageYize Tan, Zhengwei Wu profile imageZhengwei Wu, + 6
August 2020, pp 2455–2463, <https://doi.org/10.1145/3394486.3403295>.

19. Combo-Attention Network for Baidu Video Advertising
Tan Yu profile imageTan Yu, Yi Yang profile imageYi Yang, Yi Li profile imageYi Li, Xiaodong Chen profile imageXiaodong Chen, Mingming Sun profile imageMingming Sun, Ping Li
August 2020, pp 2474–2482, <https://doi.org/10.1145/3394486.3403297>.

20. To Tune or Not to Tune?: In Search of Optimal Configurations for Data Analytics
Ayat Fekry profile imageAyat Fekry, Lucian Carata profile imageLucian Carata, Thomas Pasquier profile imageThomas Pasquier, Andrew C Rice profile imageAndrew Rice, Andy Hopper profile imageAndy Hopper
August 2020, pp 2494–2504, <https://doi.org/10.1145/3394486.3403299>.

21. Reconstruction and Decomposition of High-Dimensional Landscapes via Unsupervised Learning
Jing Lei profile imageJing Lei, Nasrin Akhter profile imageNasrin Akhter, Wanli Qiao profile imageWanli Qiao, Amarda Shehu profile imageAmarda Shehu
August 2020, pp 2505–2513, <https://doi.org/10.1145/3394486.3403300>.

22. Map Generation from Large Scale Incomplete and Inaccurate Data Labels
Rui Zhang profile imageRui Zhang, Conrad M Albrecht profile imageConrad Albrecht, Wei Zhang profile imageWei Zhang, Xiaodong Cui profile imageXiaodong Cui, Ulrich Finkler profile imageUlrich Finkler, + 2
August 2020, pp 2514–2522, <https://doi.org/10.1145/3394486.3403301>.

23. Automatic Validation of Textual Attribute Values in E-commerce Catalog by Learning with Limited Labeled Data
Yaqing Wang profile imageYaqing Wang, Yifanethan Xu profile imageYifan Ethan Xu, Xian Li profile imageXian Li, Xinluna Dong profile imageXin Luna Dong, Jing Gao profile imageJing Gao
August 2020, pp 2533–2541, <https://doi.org/10.1145/3394486.3403303>.

24. CLARA: Confidence of Labels and Raters
Viet An Nguyen profile imageViet-An Nguyen, Peibei Shi profile imagePeibei Shi, Jagdish Ramakrishnan profile imageJagdish Ramakrishnan, Udi Weinsberg profile imageUdi Weinsberg, + 5

August 2020, pp 2542–2552, <https://doi.org/10.1145/3394486.3403304>.

25. Embedding-based Retrieval in Facebook Search

Juiting Huang profile imageJui-Ting Huang, Ashish Sharma profile imageAshish Sharma, Shuying Sun profile imageShuying Sun, Li Xia profile imageLi Xia, David Zhang profile imageDavid Zhang, + 4

August 2020, pp 2553–2561, <https://doi.org/10.1145/3394486.3403305>.

26. Lumos: A Library for Diagnosing Metric Regressions in Web-Scale Applications

Jamie Pool profile imageJamie Pool, Ebrahim Beyrami profile imageEbrahim Beyrami, Vishak Gopal profile imageVishak Gopal, Ashkan Aazami profile imageAshkan Aazami, + 6

August 2020, pp 2562–2570, <https://doi.org/10.1145/3394486.3403306>.

27. Order Fulfillment Cycle Time Estimation for On-Demand Food Delivery

Lin Zhu profile imageLin Zhu, Wei Yu profile imageWei Yu, Kairong Zhou profile imageKairong Zhou, Xing Wang profile imageXing Wang, Wenxing Feng profile imageWenxing Feng, + 3

August 2020, pp 2571–2580, <https://doi.org/10.1145/3394486.3403307>.

28. Calendar Graph Neural Networks for Modeling Time Structures in Spatiotemporal User Behaviors

Daheng Wang profile imageDaheng Wang, Meng Jiang profile imageMeng Jiang, Munira Syed profile imageMunira Syed, Oliver Conway profile imageOliver Conway, Vishal Juneja profile imageVishal Juneja, + 2

August 2020, pp 2581–2589, <https://doi.org/10.1145/3394486.3403308>.

29. Cracking Tabular Presentation Diversity for Automatic Cross-Checking over Numerical Facts

Hongwei Li profile imageHongwei Li, Qingping Yang profile imageQingping Yang, Yixuan Cao profile imageYixuan Cao, Jiaquan Yao profile imageJiaquan Yao, Ping Luo profile imagePing Luo

August 2020, pp 2599–2607, <https://doi.org/10.1145/3394486.3403310>.

30. GrokNet: Unified Computer Vision Model Trunk and Embeddings For Commerce

Sean Bell profile imageSean Bell, Yiqun Liu profile imageYiqun Liu, Sami Alsheikh profile imageSami Alsheikh, Yina Tang profile imageYina Tang, Edward Pizzi profile imageEdward Pizzi, + 4

August 2020, pp 2608–2616, <https://doi.org/10.1145/3394486.3403311>.

31. Improving Deep Learning for Airbnb Search

Malay Haldar profile imageMalay Haldar, Prashant Ramanathan profile imagePrashant Ramanathan, Tyler Sax profile imageTyler Sax, Mustafa Abdool profile imageMustafa Abdool, + 5

August 2020, pp 2822–2830, <https://doi.org/10.1145/3394486.3403333>.

32. Debiasing Grid-based Product Search in E-commerce
Ruocheng Guo profile imageRuocheng Guo, Xiaoting Zhao profile imageXiaoting Zhao, Adam Henderson profile imageAdam Henderson, Liangjie Hong profile imageLiangjie Hong, Huan Liu profile imageHuan Liu
August 2020, pp 2852–2860, <https://doi.org/10.1145/3394486.3403336>.
33. Saliency and Market-aware Skill Extraction for Job Targeting
Baoxu Shi profile imageBaoxu Shi, Jaewon Yang profile imageJaewon Yang, Feng Guo profile imageFeng Guo, Qi He profile imageQi He
August 2020, pp 2871–2879, <https://doi.org/10.1145/3394486.3403338>.
34. Improving Recommendation Quality in Google Drive
Suming J Chen profile imageSuming J. Chen, Zhen Qin profile imageZhen Qin, Zac Wilson profile imageZac Wilson, Brian Calaci profile imageBrian Calaci, Michael Rose profile imageMichael Rose, + 5
August 2020, pp 2900–2908, <https://doi.org/10.1145/3394486.3403341>.
35. Large-Scale Training System for 100-Million Classification at Alibaba
Liuyihan Song profile imageLiuyihan Song, Pan Pan profile imagePan Pan, Kang Zhao profile imageKang Zhao, Hao Yang profile imageHao Yang, Yiming Chen profile imageYiming Chen, + 3
August 2020, pp 2909–2930, <https://doi.org/10.1145/3394486.3403342>.
36. Mining Implicit Relevance Feedback from User Behavior for Web Question Answering
Linjun Shou profile imageLinjun Shou, Shining Bo profile imageShining Bo, Feixiang Cheng profile imageFeixiang Cheng, Ming Gong profile imageMing Gong, Jian Pei profile imageJian Pei, Daxin Jiang profile imageDaxin Jiang
August 2020, pp 2931–2941, <https://doi.org/10.1145/3394486.3403343>.
37. Controllable Multi-Interest Framework for Recommendation
Yukuo Cen profile imageYukuo Cen, Jianwei Zhang profile imageJianwei Zhang, Xu Zou profile imageXu Zou, Chang Zhou profile imageChang Zhou, Hongxia Yang profile imageHongxia Yang, Jie Tang profile imageJie Tang
August 2020, pp 2942–2951, <https://doi.org/10.1145/3394486.3403344>.
38. Managing Diversity in Airbnb Search
Mustafa Abdool profile imageMustafa Abdool, Malay Haldar profile imageMalay Haldar, Prashant Ramanathan profile imagePrashant Ramanathan, Tyler Sax profile imageTyler Sax, + 6
August 2020, pp 2952–2960, <https://doi.org/10.1145/3394486.3403345>.
39. Multi-objective Optimization for Guaranteed Delivery in Video Service Platform
Hang Lei profile imageHang Lei, Yin Zhao profile imageYin Zhao, Longjun Cai profile imageLongjun Cai

August 2020, pp 3017–3025. <https://doi.org/10.1145/3394486.3403352>.

40. Delivery Scope: A New Way of Restaurant Retrieval for On-demand Food Delivery Service

Xuetao Ding profile imageXuetao Ding, Runfeng Zhang profile imageRunfeng Zhang, Zhen Mao profile imageZhen Mao, Ke Xing profile imageKe Xing, Fangxiao Du profile imageFangxiao Du, + 5

August 2020, pp 3026–3034, <https://doi.org/10.1145/3394486.3403353>.

B. Seminar Papers from ACM SIGMOD Conference 2020

Follow the same steps as described for A above and find Sigmod 2020 papers.

41. Synner: Generating Realistic Synthetic Data

Miro Mannino profile imageMiro Mannino, Azza Abouzied profile imageAzza Abouzied

SIGMOD '20: Proceedings of the 2020 ACM SIGMOD International Conference on Management of Data June 2020, pp 2749–2752,

<https://doi.org/10.1145/3318464.3384696>.

42. DB4ML - An In-Memory Database Kernel with Machine Learning Support

Matthias Jasny profile imageMatthias Jasny, Tobias Ziegler profile imageTobias Ziegler, Tim Kraska profile imageTim Kraska, June 2020, pp 159–173,

<https://doi.org/10.1145/3318464.3380575>.

43. Active Learning for ML Enhanced Database Systems

Lin Ma profile imageLin Ma, Bailu Ding,

June 2020, pp 175–191, <https://doi.org/10.1145/3318464.3389768>.

44. Qd-tree: Learning Data Layouts for Big Data Analytics

Zongheng Yang profile imageZongheng Yang, Badrish Chandramouli, June 2020, pp 193–208, <https://doi.org/10.1145/3318464.3389770>.

45. Facilitating SQL Query Composition and Analysis

Zainab Zolaktaf profile imageZainab Zolaktaf, Mostafa Milani, June 2020, pp 209–224,

<https://doi.org/10.1145/3318464.3380602>.

46. MONSOON: Multi-Step Optimization and Execution of Queries with Partially Obscured Predicates

Sourav Sikdar profile imageSourav Sikdar, Christopher Matthew Jermaine profile imageChris Jermaine

June 2020, pp 225–240, <https://doi.org/10.1145/3318464.3389728>.

47. Cleaning Denial Constraint Violations through Relaxation

Stella Giannakopoulou, Manos Karpathiotakis, Anastasia C Ailamaki. June 2020, pp 805–815, <https://doi.org/10.1145/3318464.3389775>.

48. On Multiple Semantics for Declarative Database Repairs
Amir Gilad, Daniel Deutch, Sudeepa
June 2020, pp 817–831, <https://doi.org/10.1145/3318464.3389721>.

49. Discovery Algorithms for Embedded Functional Dependencies
Ziheng Wei, Sven Hartmann, Sebastian Link
June 2020, pp 833–843, <https://doi.org/10.1145/3318464.3389786>.

50. A Statistical Perspective on Discovering Functional Dependencies in Noisy Data
Yunjia Zhang, Zhihan Guo, Theodoros Rekatsinas
June 2020, pp 861–876, <https://doi.org/10.1145/3318464.3389749>.

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C. Seminar Papers from the VLDB (Conference on Very Large Databases) 2020 are:

You may get these papers through searching for VLDB conference paper with www.google.com or through <http://www.vldb.org/pvldb/vol13.html>.

Get these papers by searching Leddy library with title and/or author.

51. Building high throughput permissioned blockchain fabrics: challenges and opportunities
Gupta, Suyash ; Hellings, Jelle ; Rahnama, Sajjad ; Sadoghi, Mohammad; Proceedings of the VLDB Endowment, 2020-08, Vol.13 (12), p.3441-3444

52. Efficient Algorithms for Budgeted Influence Maximization on Massive Social Networks
Bian, Song ; Guo, Qintian ; Wang, Sibao ; Yu, Jeffrey Xu; Proceedings of the VLDB Endowment, 2020-05-01, Vol.13 (9), p.1498-1510

53. Data Market Platforms: Trading Data Assets to Solve Data Problems
Fernandez, Raul Castro ; Subramaniam, Pranav ; Franklin, Michael J; Proceedings of the VLDB Endowment, 2020-07-01, Vol.13 (11), p.1933-1947.

54. ADnEV: Cross-Domain Schema Matching using Deep Similarity Matrix Adjustment and Evaluation
Shraga, Roei ; Gal, Avigdor ; Roitman, Haggai; Proceedings of the VLDB Endowment, 2020-05-01, Vol.13 (9), p.1401-1415

55. Data-Parallel Query Processing on Non-Uniform Data
Funke, Henning ; Teubner, Jens; Proceedings of the VLDB Endowment, 2020-02-01, Vol.13 (6), p.884-897