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ON

DATA MINING

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1. Abraham, Ajith, Grosan, Crina & Ramos, Vitorino (Eds.). (2006). *Swarm intelligence in data mining*. Berlin: Springer.
   681.3:519.5 -SWA 148961; 149486 | CL; MA
2. Abramowicz, Witold and Zurada, Jozef (Eds.). (2000). *Knowledge discovery for business information systems.* Boston: Kluwer.
   681.3:658 -KNO 160216 | CL
3. ACM SIGKDD (2006). *Knowledge discovery and data mining: proceedings held at Philadelphia, USA, August 20-23, 2006.* New York: Association for Computing Machinery.
   CD 007:681.3(063) ACM-K G22947 | CD
4. ACM SIGKDD (2005). *Knowledge discovery and data mining: proceedings held at Illinois, USA, August 21-24, 2005.* New York: Association for Computing Machinery.
   CD 007:681.3(063) ACM-K G22865 | CD
5. ACM SIGKDD (2003). *Knowledge discovery and data mining: proceedings held at Washington D.C. August 24-27, 2003*.New York: Association for Computing Machinery.
   CD 007:681.3(063) ACM-K 143430 | CD
6. ACM SIGKDD (2001). *Knowledge discovery and data mining: proceedings held at San Francisco, CA. August 26-29, 2001.* New York: Association for Computing Machinery.
   CD 007:681.3(063) ACM-K 142448 | CD
7. ACM Workshop on Visualization and Data Mining for Computer Security Washington (2004). *Visualization and data mining for computer security*. New York: Association for Computing Machinery.
   CD 681.3-7(063) ACM-V G22694 | CL
8. Adriaans, Pieter & Zantinge, Dolf (2000). *Data mining*. Harlow: Addison-Wesley.
   681.3:658.78 ADR-D 140327 | CSC
9. Aggarwal, Charu C. (2015). *Data mining*. Heidelberg: Springer.
   681.3:658.78 AGG-D 171272; 171273-76 | CL;TB
10. Aggarwal, Charu C. (Eds.). (2007). *Data streams: models and algorithms*. New York: Springer.
    681.3:51 -DAT 154958 | CL
11. Akerkar, Rajendra and Sajja, Priti Srinivas (2016). *Intelligent techniques for data science*. Switzerland: Springer.
    681.3.01 AKE-I 170551 | CL
12. Alex A. Freitas & Simon H. Lavington (1998). *Mining very large databases with parallel processing*. Boston: Kluwer Academic.
    681.3:658.78 FRE-M 137967 | CSE

13. Anderson, Russell K. (2013). *Visual data mining: the VisMiner approach*. Chichester: John Wiley.
    681.327.57 AND-V 163445 | CL
14. Asplen-Taylor, Simon (2022). *Data and analytics strategy for business*. London: Kogan Page.
    658:005.21 ASP-D 176976 | CL; MS
15. Balas, Valentina E... (et al.). (2022). *Emerging technologies in computer engineering: cognitive computing and intelligent IoT, International conference held at Jaipur, India, February 4-5, 2022.Cham*: Springer.
    CD 681.3(063) INT-E 177957 | CD
16. Banchs, Rafael E. (2013). *Text mining with MATLAB*. New York: Springer.
    681.3.01 BAN-T 163515 | CL
17. Barbara, Daniel & Jajodia, Sushil (Eds.). (2002). *Applications of data mining in computer security*. New Delhi: Springer (India).
    681.3-7 -APP 154062 | CL
18. Baumer, Benjamin S, Kaplan, Daniel T & Horton, Nicholas J. (2017). *Modern data science with R*. Boca Raton: CRC Press.
    681.3.06R BAU-M 171516 | CL
19. Berry, Michael J.A. (2005). *Mastering data mining: the art and science of customer relationship management*. New York: John Wiley.
    681.3:658.78 BER-M 147788 | CL
20. Boginski, Vladimir L ...(et al.) (2012). *Sensors: theory, algorithms and applications*. New York: Springer.
    681.586 -SEN 162816 | CL
21. Bramer, Max (2007). *Principles of data mining*. London: Springer-Verlag.
    681.3 BRA-P 150037 | CL
22. Bramer, Max (2013). *Principles of data mining*. (2nd ed.).London: Springer.
    681.3 BRA-P 165708 | CL
23. Brazdil, Pavel ...(et al.) (2022). *Metalearning*. (2nd ed.). Cham: Springer.
    681.3 -MET 177438 | CL
24. Bressoud, Thomas and White, David (2020). Introduction to data systems: building from Python. Cham: Springer.
    681.3.01P BRE-I 177876 | CL
25. Burgelt, Christian, Steibbrecher, Matthias & Kruse, Rudolf (2009). *Graphical models: representations for learning, reasoning and data mining.* (2nd ed.). Chichester: John Wiley.
    681.3 BOR-G 157663 | CL

26. Cabena, Peter… (et.al.) (1998). *Discovering data mining: form concept to implementation*. New Jersey: Prentice Hall.
    681.3:658.78 CAB-D 137723 | CL
27. Chattamvelli, Rajan (2011). *Data mining algorithms*. New Delhi: Narosa.
    681.3:510.51 CHA-D 161880-161881 | CL; CSE
28. Chattamvelli, Rajan (2009). *Data mining methods*. New Delhi: Narosa.
    681.3:658 CHA-D 161882; 161883 | CL; CSE
29. Cioffi-Revilla, Claudio (2017). *Introduction to computational social science*.(2nd ed.).Switzerland: Springer.
    681.3:30 CIO-I 171053 | CL
30. Collmann, Jeff, & Matei, Sorin Adam (Eds.). (2016). *Ethical reasoning in big data: an exploratory analysis.* Switzerland: Springer.
    681.3:174 -ETH 169063 | CL
31. Cook, Diane J. Cook & Holder, Lawrence B. (Eds.). (2007). *Mining graph data*. Hoboken: John Wiley.
    681.3.06 -MIN 149485 | MA
32. Cox, Earl (2005). *Fuzzy modeling and genetic algorithms for data mining and exploration*. San Francisco: Morgan Kaufmann.
    681.3:519.5 COX-F 148225 | CL
33. Darmont, Jerome & Boussaid, Omar (Eds.). (2006). *Processing and managing complex data for decision support.* Hershey: Idea Group.
    681.3:658.78 -PRO 150550 | CL
34. Das, Swagatam, Abraham, Ajithand & Konar, Amit (2009). *Metaheuristic clustering*. Berlin: Springer.
    519.237.8 DAS-M 157206 | CL
35. Delmater, Rhonda (2001). *Data mining explained: manager's guide to customer-centric business intelligence*. Boston: Digital Press.
    681.3:658.78 DEL-D 144977 | CL
36. Domingos, Pedro... (et al) (Eds.). (2003). *Knowledge discovery and data mining*. New York: Association for Computing Machinery.
    CD 007:681.3(063) ACM-K G22605 | CL
37. Dua, Sumeet & Du, Xian (2011). *Data mining and machine learning in cybersecurity*. Boca Raton: Taylor & Francis.
    681.3-7 DUA-D 163632 | CL
38. Drucker, J. (2021). *Digital humanities coursebook.* Oxon: Routledge
    025:681.3 DRU-D 176136 | CL

39. Dzeroski, Saso & Lavrac, Nada (2001). *Relational data mining.* Berlin: Springer-Verlag.
    681.3:658.78 -REL 142317 | CL
40. Fernandez, George (2003). *Data mining using SAS applications*. London: CRC Press.
    007:681.3 FER-D 143488 | CL
41. Franks, Bill (2012). *Taming the big data tidal wave: finding opportunities in huge data streams with advanced analytics.* New Jersey: John Wiley.
    681.3:658 FRA-T 163568 | CL
42. Foucart, Simon(2022). *Mathematical pictures at a data science exhibition.* Cambridge: Cambridge University Press.
    51:004 FOU-M 179099| CL
43. Garofalakis, Minos, Gehrke, Johannes, & Rastogi, Rajeev (Eds.) (2016). *Data stream management*. Heidelberg: Springer.
    681.3.04 -DAT 169438 | CL
44. Geng, Hwaiyu (Ed.). (2017). *Internet of things and data analytics handbook*. Hoboken: John Wiley.
    RL-HB 681.3(021) -INT 171921 | REF
45. Groth, Robert (1998). *Data mining: hands on approach for business professionals.* New Jersey: Prentice Hall.
    681.3:658.78 GRO-D 137629 | CL
46. Han, Jiawei (2001). *Data mining: concepts and techniques*. New Delhi: Elsevier.
    681.3:658.78 HAN-D 143649-143650 | CL; CSE
47. Han, Jiawei, Kamber, Micheline & Pei, Jian (2012). *Data mining: concepts and techniques*.(3rd.ed.) Waltham: Morgan Kaufmann.
    681.3:658.78 HAN-D G23296; G23778 | CL
48. Hand, David (2004). *Principles of data mining*. New Delhi: Prentice-Hall of India.
    681.3:658.78 HAN-P 145245-145246 | TB
49. Hand, David, Mannila, Heikki & Smyth, Padhraic (2001). *Principles of data mining*. New Delhi: Prentice Hall of India.
    681.3:658.78 HAN-P 152603 | CL
50. Hastie, Trevor, Tibshirani, Robert & Friedman, Jerome (2009). *Elements of statistical learning: data mining, inference, and prediction.* (2nd ed.).New York: Springer.
    681.3 HAS-E 155570; 174920 | CL; ME
51. Hsu, Hui-Huang (Eds.). (2006). *Advanced data mining technologies in bioinformatics*. Hershey: Idea Group.
    MA 577:681.3 -ADV 149473 | MA

52. Hua, Ming & Pei, Jian (2011). *Ranking queries on uncertain data*. New York: Springer.
    519.233.6 HUA-R 161582 | CL
53. Ivezic, Zeljko…(et.al.) (2014). *Statistics, data mining, and machine learning in astronomy: a practical Python guide for the analysis of survey data*. New Jersey: Princeton University Press.
    52:681.3 -STA 166201 | CL
54. Jiang, Hao ...(et.al) (2019). *Mobile data mining and applications*. Switzerland: Springer.
    621.391:681.3 -MOB 174466 | CL
55. Jo, Taeho (2019). *Text mining: concepts, implementation, and big data challenge*. Cham: Springer.
    681.3 JO-T 174016; 174398 | CL; CSE
56. Kamath, Chandrika (2009). *Scientific data mining: a practical perspective*. Philadelphia: SIAM.
    5/6:681.3 KAM-S 155956 | CL
57. Kantardzic, Mehmed (2003). *Data mining: concepts, models, methods and algorithms*. Hoboken: John Wiley.
    681.3.01 KAN-D 146471 | CL
58. Kantardzic, Mehmed (2003). *Data mining: concepts, models, methods, and algorithms*. Hoboken: John Wiley.
    007:681.3 KAN-D 148766 | MS
59. Kantardzic, Mehmed (2011). *Data mining: concepts, models, methods, and algorithms*. (2nd ed.). New Jersey: John Wiley.
    681.3.01 KAN-D 164074 | CL
60. Kargupta, Hillol... (et al.) (Eds.). (2004). *Data mining: next generation challenges and future directions*. California: AAAI Press/ MIT Press.
    681.3 -DAT 148033 | CL
61. Kargupta, Hillol... (et.al.) (2007). *Data mining: next generation challenges and future directions*. New Delhi: Prentice Hall of India.
    681.3:658.78 -DAT 152216 | CL
62. Kargupta, Hillol…(et al.) (Eds.). (2009). *Next generation of data mining.* Boca Raton: Taylor & Francis.
    618.3.01 -NEX 162296; 162720 | CL; CSE
63. Kovalerchuk, Boris & Vityaev, Evgenii (2000). *Data mining in finance: advances in relational and hybrid methods.* Boston: Kluwer Academic.
    336.7:681.3 KOV-D 155865 | CL
64. Kudyba, Stephan (2014). *Big data, mining, and analytics: components of strategic decision making*. Boca Raton: CRC Press.
    658:004.62 KUD-B 166573 | CL

65. Larose, Daniel T. (2006). *Data mining methods and models*. New Delhi: Wiley India.
681.3.01 LAR-D 155974-155975 | CL

66. Ledolter, Johannes (2013). *Data mining and business analytics with R*. Hoboken: John Wiley.
681.3:658 LED-D 167258 | CL

67. Leke, Collins Achepsah & Marwala, Tshilidzi (2019). *Deep learning and missing data in engineering systems.* Switzerland: Springer.
681.3 LEK-D 174465 | CL

68. lgual, Laura & Segui, Santi (2017). *Introduction to data science: a python approach to concepts, techniques and applications.* Switzerland: Springer.
681.3.01 LGU-I 171054 | CL

69. Lin, Tsau Young, Yao, Yiyu Y. & Zadeh, Lotfi A. (Eds.). (2002). *Data mining, rough sets and granular computing.* Heidelberg: Springer-Verlag.
681.3:658.78 -DAT 142307 | CL

70. Lin, Tsau Young… (et al). (2005). *Foundations of data mining and knowledge discovery*. Berlin: Springer-Verlag.
681.3.05 -FOU 148471 | CL

71. Lin, Tsau Young… (et al.) (Eds.). (2010). *Data mining: foundations and practice.* Heidelberg: Springer.
681.3.01 -DAT 163271 | CL

72. Liu, Bing (2007). *Web data mining: exploring hyperlinks, contents, and usage data*. Berlin: Springer.
681.3 LIU-W 148962 | CL

73. Liu, Huan & Motoda, Hiroshi (Eds.). (2008). *Computational methods of feature selection*. Boca Raton: Taylor & Francis.
681.3 -COM 155399; 157738 | CL;CSE

74. Mahmood, Zaigham (Ed.). (2016). *Data science and big data computing*. Switzerland: Springer.
681.3 -DAT 173123 | CL

75. Maimon, Oded & Rokach, Lior (Eds.). (2005). *Data mining and knowledge discovery handbook*. New York: Springer Science + Business Media.
007:681.3 -DAT 147920 | CL

76. Masud, Mehedy, Khan, Latifur & Thuraisingham, Bhavani M. (2012). *Data mining tools for malware detection.* Boca Raton: CRC Press.
681.3-7 MAS-D 168821 | CL

77. Memon, Nasrullah …(et al.) (2010). *Data mining for social network data*. New York: Springer.
681.3:316.472.4 -DAT 162124-162125 | CL; CSE

78. Minelli, Michael, Chambers, Michele & Dhiraj, Ambiga (2013). *Big data, big analytics: emerging business intelligence and analytic trends for today's businesses*. New Jersey: John Wiley.
    681.3:658 MIN-B 163566 | CL
79. Myatt, Glenn J. (2007). *Making sense of data: a practical guide to exploratory data analysis and data mining*. Hoboken: John Wiley.
    519.23 MYA-M 149474 | MA
80. Ohlhorst, Frank J. (2013). *Big data analytics: turning big data into big money*. Hoboken: John Wiley.
    659.235:681.3 OHL-B 163565 | CL
81. Ohsawa, Yukio & Yada, Katsutoshi (Eds.). (2009). *Data mining for design and marketing*. Boca Raton: Taylor & Francis.
    681.3.01 -DAT 164095 | CL
82. Pal, Sankar K. (2004). *Pattern recognition algorithms for data mining.* Boca Raton: Chapman & Hall/CRC.
    681.3:658.78 PAL-P 145123 | CL
83. Paprotny, Alexander & Thess, Michael (2013). *Realtime data mining: self-learning techniques for recommendation engines.* Heidelberg: Birkhauser.
    681.3 PAP-R 168168 | CL
84. Pearson, Ronald K. (2018). *Exploratory data analysis using R.* Boca Raton: CRC Press.
    681.3.06R PEA-E 172447; 173284; 173376 | CL; TB; MS
85. Pujari, Arun K. (2001). *Data mining techniques*. Hyderabad: Universities Press.
    681.3:658.78 PUJ-D 143979 | CL
86. Ratner, Bruce (2012). *Statistical and machine learning data mining: techniques for better predictive modeling and analysis of big data*. (2nd. ed.) Boca Raton: CRC Press.
    519.23:681.3 RAT-S 162817 | CL
87. Reddy, Chandan K. & Aggarwal, Charu C.(Eds.). (2015). *Healthcare data analytics*. Boca Raton: CRC Press.
    616-073:681.3 -HEL 167792 | CL
88. Rokach, Lior & Maimon, Oded (2008). *Data mining with decision trees: theory and applications*. New Jersey: World Scientific.
    681.3:005.311.6 ROK-D 153066 | CL
89. Rokach, Lior & Maimon, Oded (2014). *Data mining with decision trees: theory and applications*. (2nd ed.).New Jersey: World Scientific.
    681.3:005.311.6 ROK-D 166532 | CL

90. Russell, Matthew A. (2011). *Mining the social web*. Mumbai: Shroff Publishers.
681.3.01 RUS-M 163010-163011 | CL;CSE
91. Rutkowski, Leszek, Jaworski, Maciej & Duda, Piotr (2020). *Stream data mining*. Switzerland: Springer.
681.3 RUT-S 173308 | CL
92. Saiz, Alfonso Zamora ...(et al.) (2020). *Introduction to data analysis in R*. Switzerland: Springer.
681.3.06R -INT 176983: 177971 | CL; DMS
93. Samatova, Nagiza F. ...(et al.) (Eds.). (2013). *Practical graph mining with R*. Boca Raton: CRC Press.
681.3.06R -PRA 164700 | CL
94. Sato-Ilic, Mika & Jain, Lakhmi C. (2006). *Innovations in fuzzy clustering: theory and applications.* Berlin: Springer.
519.6 SAT-I 151411 | CL
95. Savas, Onur and Deng, Julia (Eds.). (2017). *Big data analytics in cybersecurity.* Boca Raton: CRC Press.
681.3-7 -BIG 171526 | CL
96. Schumaker, R. P. (2010). *Sports data mining*. New York: Springer.
681.3:796 SCH-S 161377 | CL
97. Schwaiger, M. & Optiz, O. (Eds.). (2003). *Exploratory data analysis in empirical research*. Berlin: Springer-Verlag.
681.3WW:025.5 -EXP 146117 | CL
98. Shi, Bin & Iyenger, S. S. (2020). *Mathematical theories of machine learning - theory and applications.* Switzerland: Springer.
681.3:517.97 SHI-M 174422 | CL
99. Shmueli, Galit, Bruce, Peter C. & Patel, Nitin R. (2016). *Data mining for business analytics: concepts, techniques, and applications with XLMiner.*(3rd ed.) Hoboken: John Wiley.
681.3:658 SHM-D 170428; 172224 | CL;MS
100. Shmueli, Galit, Patel, Nitin R. & Bruce, Peter C. (Eds.). (2007). *Data mining for business intelligence: concepts, techniques, and applications in Microsoft Office Excel with XLMiner*. Hoboken: John Wiley.
681.3:658 SHM-D 149231; 155983 | CL
101. Simovici, Dan (2020). *Mathematical analysis for machine learning and data mining*. Singapore: World Scientific.
681.3:517 SIM-M 175897; 177647 | CL; SAI
102. Simovici, Dan A. & Djeraba, Chabane (2008). *Mathematical tools for data mining: set theory, partial orders, combinatorics.* Boston: Springer.
005.311.1 SIM-M 153591 | CL

103. Simovici, Dan A. & Djeraba, Chabane (2014). *Mathematical tools for data mining: set theory, partial orders, combinatorics.* (2nd ed.). Heidelberg: Springer.
    005.311.1 SIM-M 166118 ; 166962 | CL ; CSE
104. Song, Min & Wu, Yi-Fang Brook (Eds.). (2009). *Handbook of research on text and web mining technologies (V.1-2)*. Hershey: Information Science Reference.
    RL-HB 681.3(021) -HAN 155694 - 155695 | REF
105. Srivastava, Ashok N. & Sahami, Mehran (Eds.). (2009). *Text mining: classification, clustering and applications.* Boca Raton: CRC Press.
    681.3 -TEX 157711 | CL
106. Steele, Brian, Chandler, John & Reddy, Swarna (2016). *Algorithms for data science*. Switzerland: Springer.
    681.3.01 STE-A 171051 | CL
107. Sumathi, S. & Sivaanandam, S.N. (2006). *Introduction to data mining and its applications*. Berlin: Springer.
    681.3 SUM-I 149484 | MA
108. Szabo, Gabor... (et.al.) (2019). *Social media data mining and analytics*. Hoboken: John Wiley.
    316.772.5 -SOC 173389 | CL
109. Tan, Pang-Ning, Vipin Kumar & Steinbach, Michael (2015). *Introduction to data mining*. Noida: Pearson.
    681.3.01 TAN-I 168241; 168242 | CL; CSE
110. Torra, Vicenc (Eds.). (2003). *Information fusion in data mining*. Berlin: Springer-Verlag.
    007:681.3 -INF 147058 | CL
111. Tsihrintzis, George A., Sotiropoulos, Dionisions N. & Jain, Lakhmi C.(Eds.). (2019). *Machine learning paradigms.* Cham: Springer.
    681.3 -MAC 175733-175734 | CL;CSE
112. Ukkusuri, Satish V. & Yang, Chao (Eds.). (2019). *Transportation analytics in the era of big data*. Switzerland: Springer.
    338.47:681.3 -TRA 173965 | CL
113. Vaidya, Jaideep, Clifton, Chris & Zhu, Michael (2006). *Privacy preserving data mining*. New York: Springer Science + Business Media.
    681.3 VAI-P 148960 | CL
114. Wallner, Gunter (Ed.) (2019). *Data analytics applications in gaming and entertainment*. Boca Raton: CRC Press.
    681.3 -DAT 174044-174045 | CL;CSE

115. Wang, Chao (Ed.) (2018). *High performance computing for big data*. Boca Raton: CRC Press.
681.3 -HIG 174046 | CL
116. Wang, Lipo & Fu, Xiuju (2005). *Data mining with computational intelligence*. Berlin: Springer-Verlag.
681.3.05 WAN-D 148470 | CL
117. Wang, Zhangyang, Fu, Yun & Huang, Thomas S. (Eds.). (2019). *Deep learning through sparse and low-rank modeling.* London: Elsevier.
681.3 -DEE 174454; 174503 | CL; CSE
118. Way, Michael J. ...(et al.) (Eds.). (2012). *Advances in machine learning and data mining for astronomy.* Boca Raton: Taylor & Francis.
52:681.3 -ADV 162826; 164356 | CL; CSE
119. Witten, Ian H. ...(et al.) (2017). *Data mining*. (4th ed.). New York: Elsevier.
681.3.01 -DAT 170611; 170542 | CL; MS
120. Wong, Man Leung & Leung, Kwong Sak (2000). *Data mining using grammar based genetic programming and applications.* Boston: Kluwer Academic.
681.3.066 WON-D 140237 | CL
121. Wu, Xindong & Vipin Kumar (Eds.). (2009). *Top ten algorithms in data mining*. Boca Raton: Taylor&Francis.
681.3:510.5 -TOP 162490 | CL
122. Xu, Guandong, Zong, Yu & Yang, Zhenglu (2013). *Applied data mining*. Boca Raton: CRC Press.
681.3 XU-A 165035-165036 | CL; CSE
123. Yan, Wei Qi (2021). *Computational methods for deep learning*. Cham: Springer.
681.3:51 YAN-C 175735; 175743; 178932 | CL; CSE; CBME
124. Yang, Xin-She (2019). *Introduction to algorithms for data mining and machine learning*. London: Elsevier.
681.3 YAN-I 174949 | CL
125. Yang, Xin-She (2020). *Nature-inspired optimization algorithms*. (2nd ed.). London: Elsevier.
519.863 YAN-N 176702 | CL
126. Zaki, Mohammed J. & Meira, Wagner (2020). *Data mining and machine learning*. (2nd ed.). Cambridge: Cambridge University Press.
681.3 ZAK-D 175093 | CL
127. Zhao, Yanchang & Cen, Yonghua (2014). *Data mining applications with R*. Amsterdam: Elsevier.
681.3.06R ZHA-D 164979 | CL
128. Zhu, Tianqing... (et. al.) (2017). *Differential privacy and applications*. Switzerland: Springer.
681.3-7 -DIF 171509 | CL

129. Zhu, Xingquan & Davidson, Ian (Eds.). (2007). *Knowledge discovery and data mining: challenges and realities.* Hershey: IGI Global.

007:681.3 -KNO 150543 | CL

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