

Refereed Publications H-index 52

152. Oghenejokpeme, I.O., Alexandrov, N. & King, R.D. (2020) Predicting Rice Phenotypes with Meta and Multi-Target Learning. *Machine Learning Journal* (in press).
151. Begalinova, A., King, R.D., Lennox, B., Batista-Navarro, R. (2020) Self-supervised learning of object slippage: An LSTM model trained on low-cost tactile sensors. *IEEE International Conference on Robotic Computing (IRC)* (in press).
150. Sadawi, N., Olier, I., Vanschoren, J., Bickerton, R., Grosan, C., Soldatova, L. & Ross D. King, R.D. (2019) Multi-Task Learning with a Natural Metric for Quantitative Structure Activity Relationship Learning. *Journal of Chemoinformatics* (in press).
149. Grinberg, N.F., Oghenejokpeme, I.O., & King, R.D. (2019) An Evaluation of Machine-learning for Predicting Phenotype: Studies in Yeast, Rice, and Wheat. *Machine Learning Journal* <https://doi.org/10.1007/s10994-019-05848-5>.
148. Alsalamah, S.A., Riza Batista-Navarro, R. & Ross D. King (2019) Using Prior Knowledge to Facilitate Computational Reading of Arabic Calligraphy in *The 20th International Conference on Intelligent Data Engineering and Automated Learning (IDEAL)* (in press).
147. Gu, Q. & Ross King, R.D. (2019) Deep Learning Does not Generalize Well to Recognizing Cats and Dogs in Chinese Paintings. *Discovery Science. DS 2019* (in press).
146. Coutant, A., Roper, K., Banos, D.T., Bouthinon, D., Carpenter, M., Grzebyta, J., Santini, G., Soldano, H., Elati, M., Ramon, J., Rouveirol, C., Soldatova, L., King, R.D. (2019) Closed-Loop Cycles of Experiment Design, Execution, and Learning Accelerate Systems Biology Model Development in Yeast. *Proc. Nat. Acad. Sci. U.S.A.* 201900548; DOI: 10.1073/pnas.1900548116
145. Salamah, S.A. & King, R.D. (2018) Towards the Machine Reading of Arabic Calligraphy: A Letters Dataset and Corresponding Corpus of Text. 2018 IEEE 2nd International Workshop on Arabic and Derived Script Analysis and Recognition (ASAR) 19-23.
144. Ross D. King, R.D. & Stephen Roberts, S. (2018) Artificial intelligence and machine learning in science. In: *OECD Science, Technology and Innovation Outlook 2018: Adapting To Technological And Societal Disruption*. Chapt. 5. 121-136
143. Orhobor O.I., Alexandrov N.N., King R.D. (2018) Predicting Rice Phenotypes with Meta-learning. In: Soldatova L., Vanschoren J., Papadopoulos G., Ceci M. (eds) *Discovery Science. DS 2018*. Lecture Notes in Computer Science, vol 11198. Springer, Cham. pp 144-158
142. Dash, T., Srinivasan, A., Vig, L., Orhobor, O.I., King, R.D. (2018) Large-Scale Assessment of Deep Relational Machines. In: *28th International Conference on Inductive Logic Programming (ILP 2018)* Springer, Cham 22-37.
141. Alsalamah, S. & King, R.D. (2018) Towards the Machine Reading of Arabic Calligraphy: A Letters Dataset and Corresponding Corpus of Text. *Proceeding of the 2nd IEEE International Workshop on Arabic and derived Script Analysis and Recognition (ASAR)* (in press).
140. King, R.D., Schuler, V., Mellingwood, C., & Soldatova, L.N. (2018) Automating science: philosophical and social dimensions. *IEEE Technology and Society Magazine*. 37, 40-46.
139. Bilsland, E, Vliet, L., van, Williams, K., Feltham, J., Carrasco, M., Fotoran, W., Cubillos, E., Wunderlich, G., Grötl, M., Hollfelder, F., Jackson, V., King, R.D. & Oliver, S.G. (2018) Plasmodium dihydrofolate reductase is a second enzyme target for the antimalarial action of triclosan. *Scientific Reports*. 8. 1038.
138. Olier, I., Sadawi, N., Bickerton, G.R., Vanschoren, J., Grosan, C., Soldatova, L., & King, R.D. (2017) Meta-QSAR: a large-scale application of meta-learning to drug design. *Machine Learning Journal*. 107(1), 285-311
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135. Rozanski, R., Bragaglia, S., Ray, O., & King, R.D. (2015) Automating development of metabolic network models In: *The 13th International Conference on Proceedings of Computational Methods in Systems Biology*. (Eds. O. Roux). Lecture Notes in Computer Science 9308, Springer, 145-156.
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129. Zhou, F., Toivonen, H., & King, R.D. (2014) The use of weighted graphs for large-scale genome analysis. *PLOS ONE*. (DOI: 10.1371).
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120. Scott, I.M., Vermeer, C.P., Liakata, M., Corol, D.I., Ward, J.L., Lin, W., Johnson, H.E., Whitehead, L., Kular, B., Baker, J.M., Walsh, S., Dave, A., Larson, T.R., Graham, I.A., Wang, T.L., King, R.D., J. Draper, J., & Beale, M.H. (2010) Enhancement of Plant Metabolite Fingerprinting by Machine Learning. *Plant Physiology* **153**, 1506-1520.
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117. Ray, O., Whelan, K. & King R.D. (2010). Automatic Revision of Metabolic Networks through Logical Analysis of Experimental Data Proc. 19th Int. Conf. on Inductive Logic Programming, LNAI 5989:194-201.
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113. Schierz, A. C. and King, R. D. (2009) *Drugs and Drug-like compounds: Discriminating Approved Pharmaceuticals from Screening-Library Compounds. LNCS Pattern Recognition in Bioinformatics*. 331-343
112. King, R.D., Rowland, J., Aubrey, W., Liakata, M., Markham, M., Soldatova, L.N., Whelan, K.E., Clare, C., Sparkes, A., Oliver, S.G., Pir, P., & Young, M. (2009) The Robot Scientist Adam. *IEEE Computer* **42**, 46-54.
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109. King, R.D., Rowland, J., Oliver, S.G., Young, M., Aubrey, W., Byrne, E., Liakata, M., Markham, M., Pir, P., Soldatova, L.N., Sparkes, A., Whelan, K.E., Clare, C. (2009) The Automation of Science. *Science*. **324**, 85-89.
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108. Soldatova, L.N., Aubrey, W., King, R.D. & Clare, A. (2008) The EXACT description of biomedical protocols. *Bioinformatics (Special issue ISMB)* **24**, i295-i303.
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106. Srinivasan, A. & King, R.D. (2008) Incremental Identification of Qualitative Models of Biological Systems using Inductive Logic Programming. *Journal of Machine Learning Research* **9**, 1475-1533.

105. Coghill, G.M., Srinivasan, A. & King, R. D. (2008) Qualitative System Identification from Imperfect Data. *Journal of Artificial Intelligence Research* **32**, 825-877
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