



Figure 6: A lead sheet generated with an imposed max order of 6

Markov sequences with imposed maximum order on real-world corpora.

Acknowledgements

This research is conducted within the Flow Machines project which received funding from the European Research Council under the European Union's Seventh Framework Programme (FP/2007-2013) / ERC Grant Agreement n. 291156.

References

- Aho, A. V., and Corasick, M. J. 1975. Efficient string matching: An aid to bibliographic search. *Commun. ACM* 18(6):333–340.
- Begleiter, R.; El-Yaniv, R.; and Yona, G. 2004. On prediction using variable order markov models. *J. Artif. Intell. Res. (JAIR)* 22:385–421.
- Beldiceanu, N.; Carlsson, M.; and Petit, T. 2004. Deriving filtering algorithms from constraint checkers. In Wallace (2004), 107–122.
- Brooks, F. P.; Hopkins, A.; Neumann, P. G.; and Wright, W. 1957. An experiment in musical composition. *Electronic Computers, IRE Transactions on* (3):175–182.
- Karakostas, G.; Lipton, R. J.; and Viglas, A. 2000. On the complexity of intersecting finite state automata. In *IEEE Conference on Computational Complexity*, 229–234. IEEE Computer Society.
- Karakostas, G.; Lipton, R. J.; and Viglas, A. 2003. On the complexity of intersecting finite state automata and $n \mid$ versus $n \mid p$. *Theor. Comput. Sci.* 302(1-3):257–274.
- Nierhaus, G. 2009. *Algorithmic composition: paradigms of automated music generation*. Springer.
- Pachet, F., and Roy, P. 2011. Markov constraints: steerable generation of markov sequences. *Constraints* 16(2):148–172.
- Pachet, F.; Roy, P.; and Barbieri, G. 2011. Finite-length markov processes with constraints. In Walsh, T., ed., *IJCAI*, 635–642. IJCAI/AAAI.
- Pesant, G. 2004. A Regular Language Membership Constraint for Finite Sequences of Variables. In Wallace (2004), 482–495.
- Pinkerton, R. C. 1956. Information theory and melody. *Scientific American*.
- Quimper, C.-G., and Walsh, T. 2006. Global grammar constraints. In Benhamou, F., ed., *CP*, volume 4204 of *Lecture Notes in Computer Science*, 751–755. Springer.

Quimper, C.-G., and Walsh, T. 2008. Decompositions of grammar constraints. In Fox, D., and Gomes, C. P., eds., *AAAI*, 1567–1570. AAAI Press.

Villeneuve, D., and Desaulniers, G. 2005. The shortest path problem with forbidden paths. *European Journal of Operational Research* 165(1):97–107.

Wallace, M., ed. 2004. *Principles and Practice of Constraint Programming - CP 2004, 10th International Conference, CP 2004, Toronto, Canada, September 27 - October 1, 2004, Proceedings*, volume 3258 of *Lecture Notes in Computer Science*. Springer.