1096-05-601 **Abbas M Alhakim*** (aa145@aub.edu.lb). *Generating and Compressing De Bruijn Sequences Using Preference Diagrams.*

This talk is about the generation of classical de Bruijn sequences using the method of preference functions, the prefer-one sequence, aka the Ford sequence, being the basic example of this method. This method was originally discussed in 1960s but apparently it was soon thought of as inefficient because of space efficiency considerations. A recent paper by the author shows that most de Bruijn sequences can be "compressed" into a table that is much smaller than its original size. Also a preference table of an order n de Bruijn sequence can itself be used to generate de Bruijn sequences of all orders larger than n (a la Ford algorithm). We also discuss how such tables (or functions) can be constructed to generate de Bruijn sequences with a few forbidden patterns. (Received September 07, 2013)