

Dynamic Succinct Data Structures and Compressed Random Access Memory^{*}

(*Abstract*)

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In the past 20 years, succinct and compact data structures have matured to the point that practical implementations of them now underpin several data intensive software processes, e.g, for DNA sequence assembly and search in bioinformatics. The tacit assumption with the vast majority of results to date has been that the data structure and the underlying data remain static — practical dynamic compact data structures are still very much in their infancy. This talk will focus on some recent forays into the development of practical dynamic succinct data structures, including dynamic succinct tries, compact hash tables, and compressed arrays.

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