

Abstract Submitted
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Identifying Dyads and their conservation in Drosophila. DEBASIS DAN, Indiana University, Bloomington — Core promoter regions in *Drosophila* are enriched with binding sites like TATA, Inr, DPE, MTE, etc. They have very strict spacing between each other in promoters where they occur together. For example, in *Drosophila melanogaster* TATA-Inr has a spacing of 25-30 bp. Our aim in this work is to identify all such pair of motifs having strict positional constraint in the core promoters of all *Drosophila* species. We discover how these motifs and the spacing between them evolve within *Drosophila* species. For this we analyze 700 bp upstream and 300 bp downstream of TSS in *D. melanogaster* and the corresponding orthologous region in other *Drosophila* species. For each species, this 1000 bp region is searched for statistically over-represented compound words of the form W1NLW2, where L is the spacing between words W1 and W2. These compound words are systematically clustered for further analysis.

Debasis Dan
Indiana University, Bloomington

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