

Supplementary File 4

Exon-Intron Boundary Detection Made Easy by Physicochemical Properties of DNA

Dinesh Sharma^[a], Danish Aslam^[a], Kopal Sharma^[a], Aditya Mittal^[a], B Jayaram^{*,[a,b]}

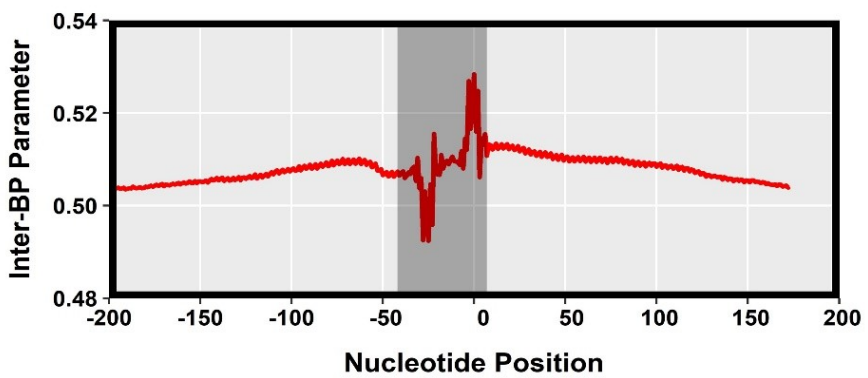
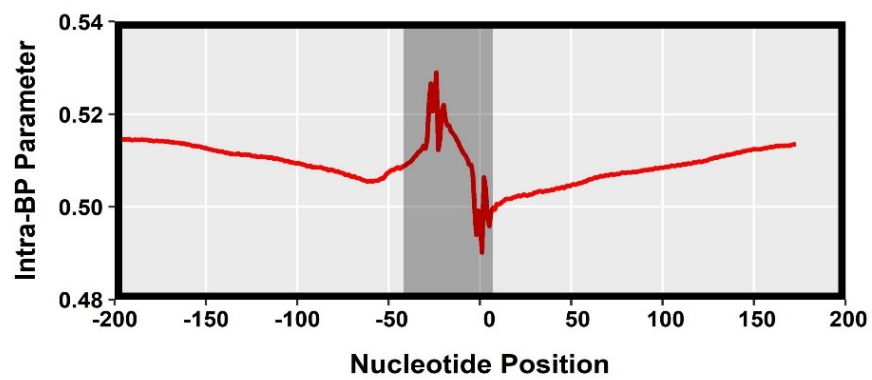
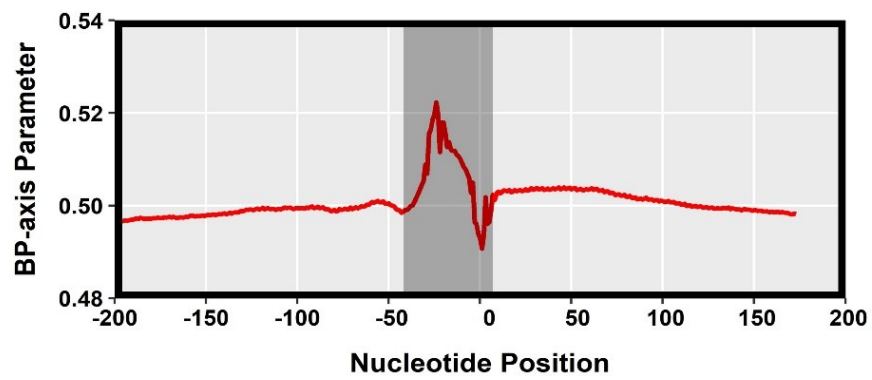
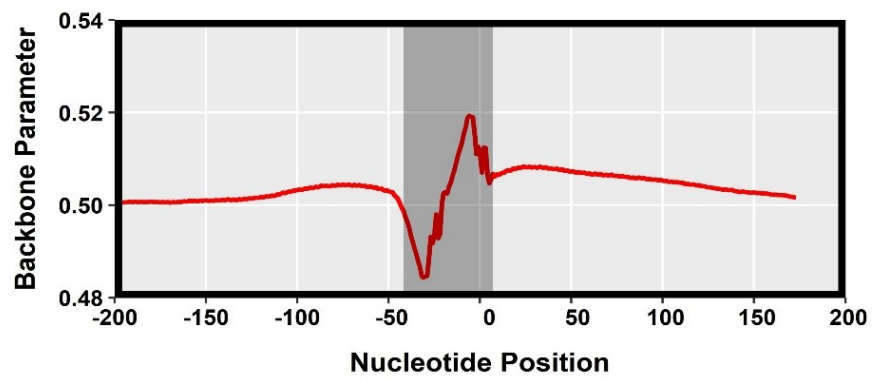
a: Supercomputing Facility for Bioinformatics & Computational Biology (SCFBio), Kusuma School of Biological Sciences, Indian Institute of Technology Delhi (IIT Delhi), Hauz Khas, New Delhi, 110016, India.

b: Department of Chemistry, IIT Delhi, Hauz Khas, New Delhi, 110016, India.

*: bjayaram@chemistry.iitd.ac.in

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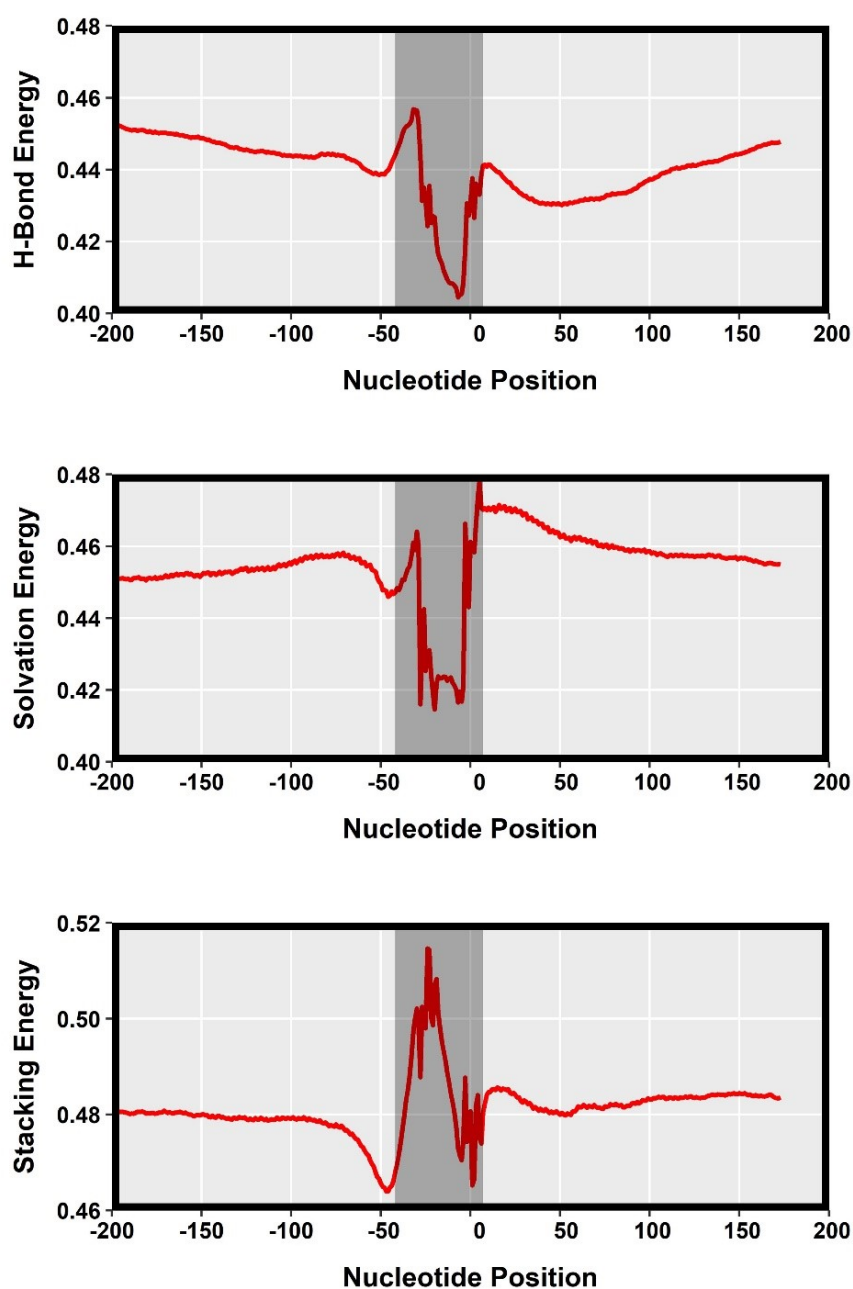
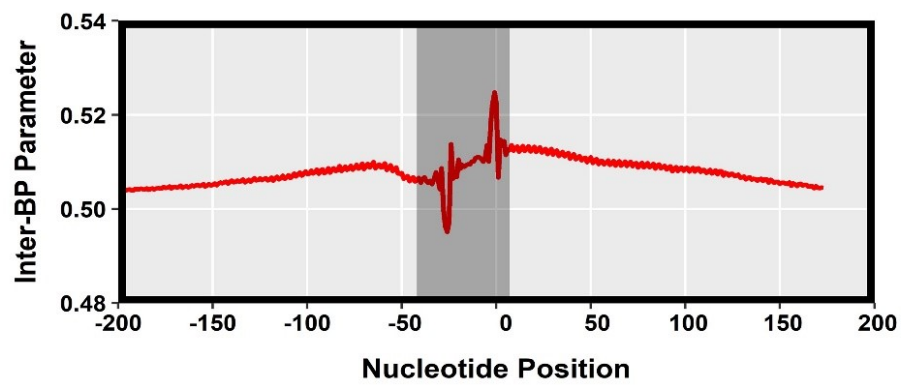
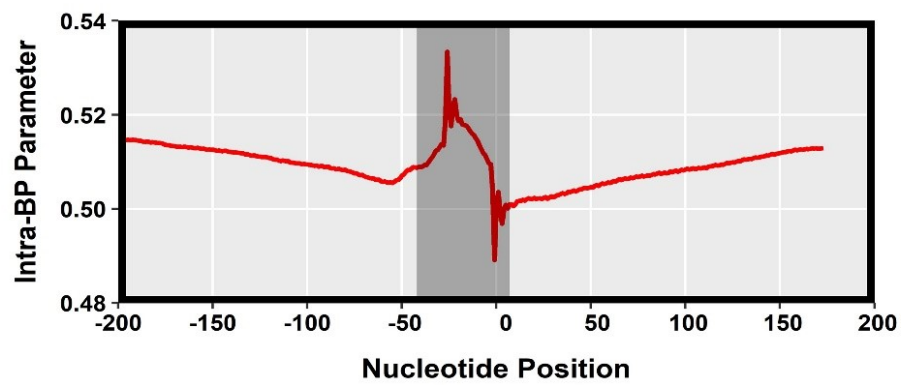
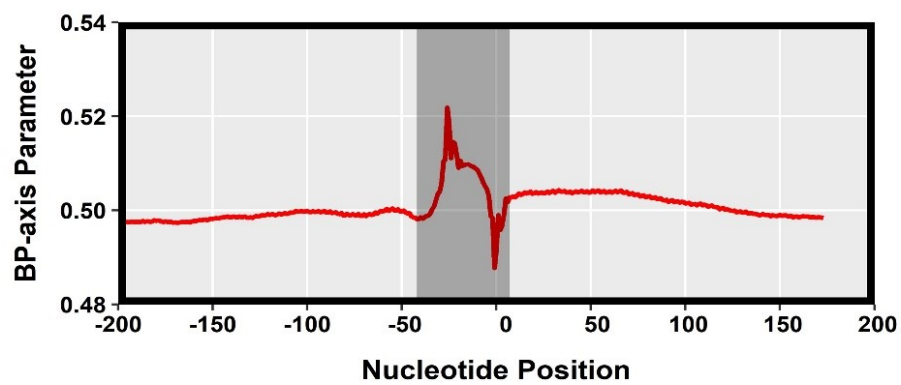
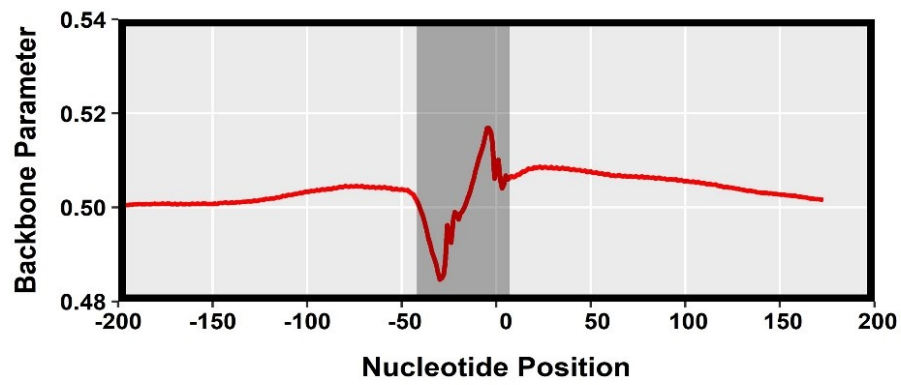


Figure S1. Merged physicochemical profile plots of the 401-nucleotides sequence at the ES position. The normalized parameter values are on the y-axis, while the nucleotide location relative to the ES (at 0) is on the x-axis. The highlighted grey region denotes the 50-length segment undergoing the physicochemical transition at these boundaries.



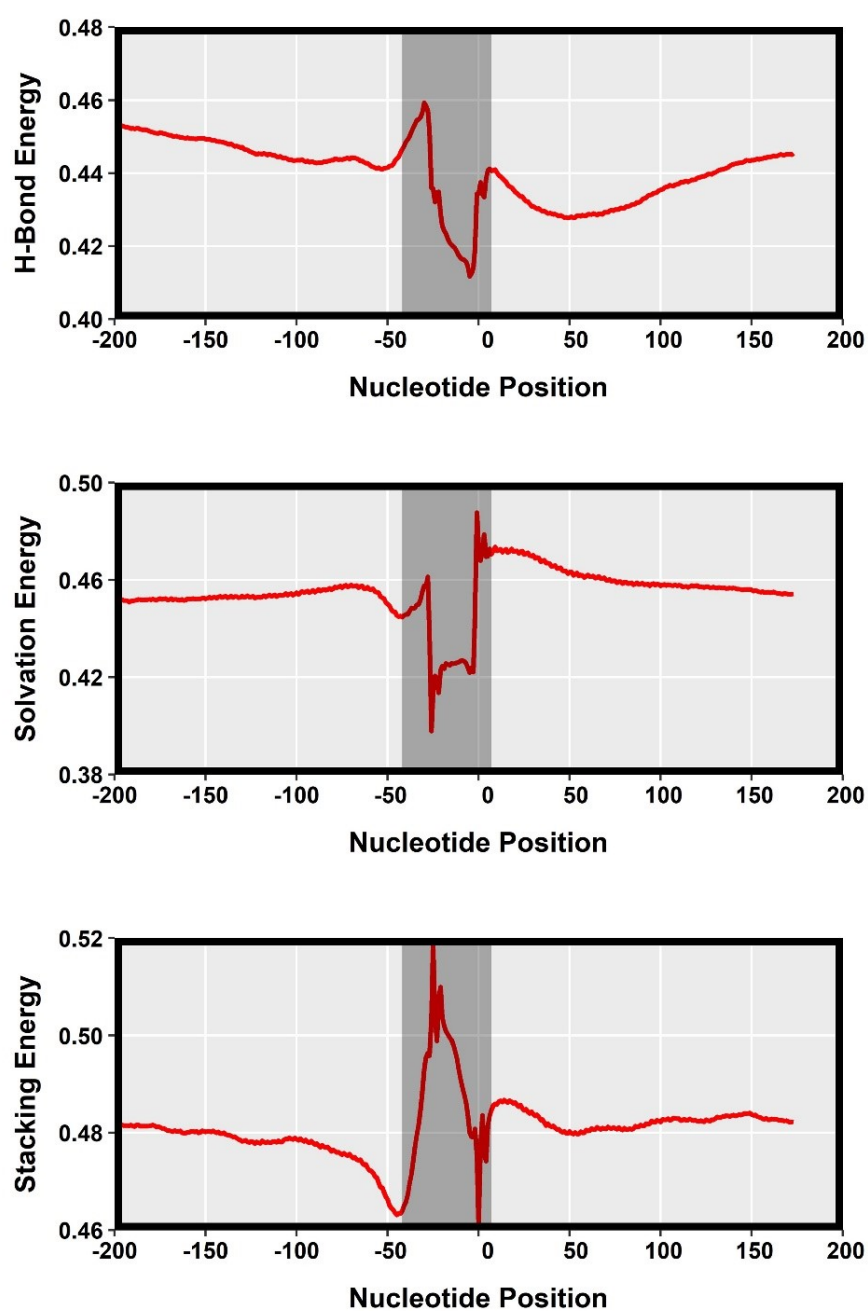


Figure S2. Merged physicochemical profile plots of the 401-nucleotides sequence at the EE position. The normalized parameter values are on the y-axis, while the nucleotide location relative to the EE (at 0) is on the x-axis. The highlighted grey region denotes the 50-length segment undergoing the physicochemical transition at these boundaries.

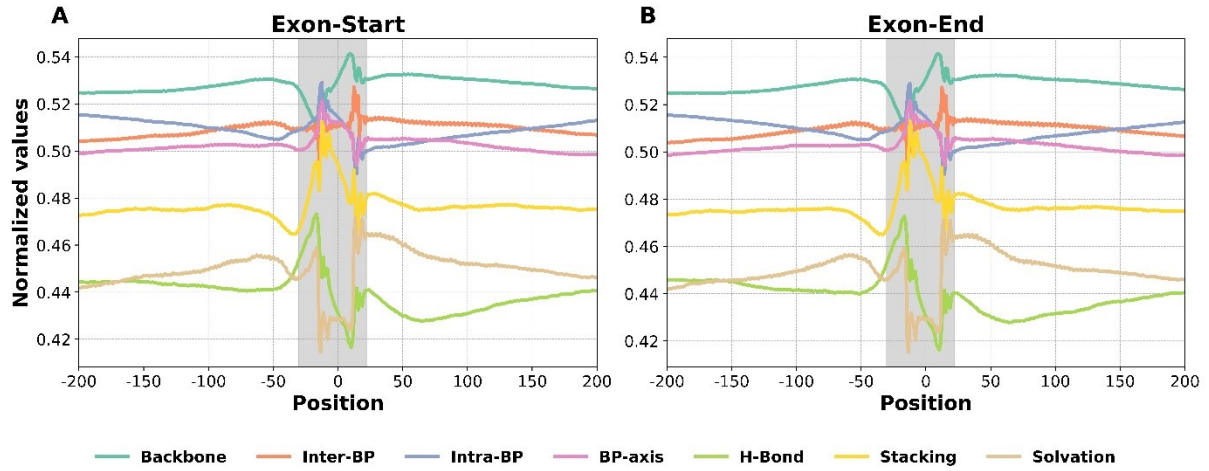


Figure S3: Profiles of the seven normalized structural and energetic parameters at the EI junctions in *Mus musculus*. (A) Exon-start, (B) Exon-end. Each line represents a major structural or energetic parameter. The four structural parameters were obtained by combining the individual parameters within that category. These parameters show the actual structural and energy change at the two boundaries.

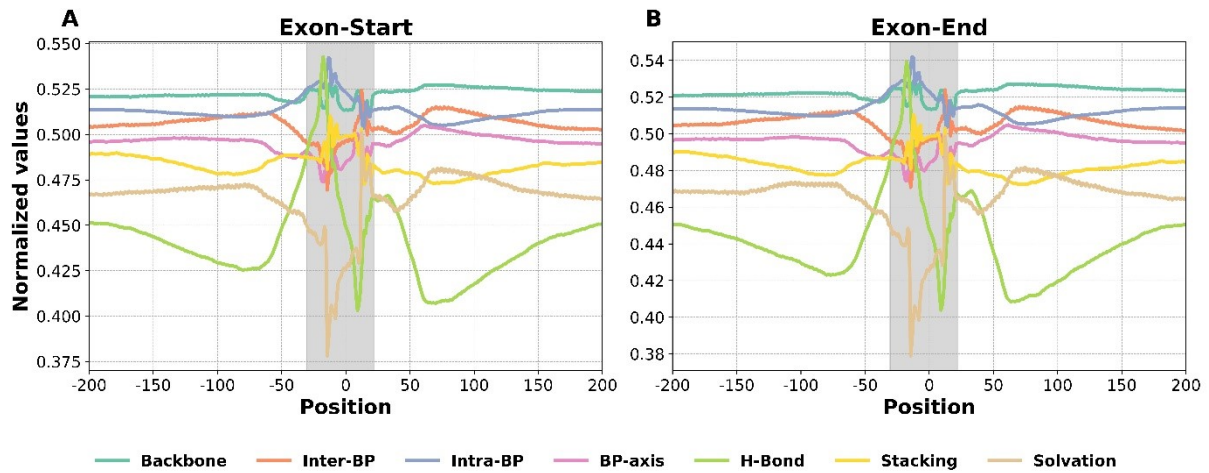


Figure S4: Profiles of the seven normalized structural and energetic parameters at the EI junctions in *Caenorhabditis elegans*. (A) Exon-start, (B) Exon-end. Each line represents a major structural or energetic parameter. The four structural parameters were obtained by combining the individual parameters within that category. These parameters show the actual structural and energy change at the two boundaries.

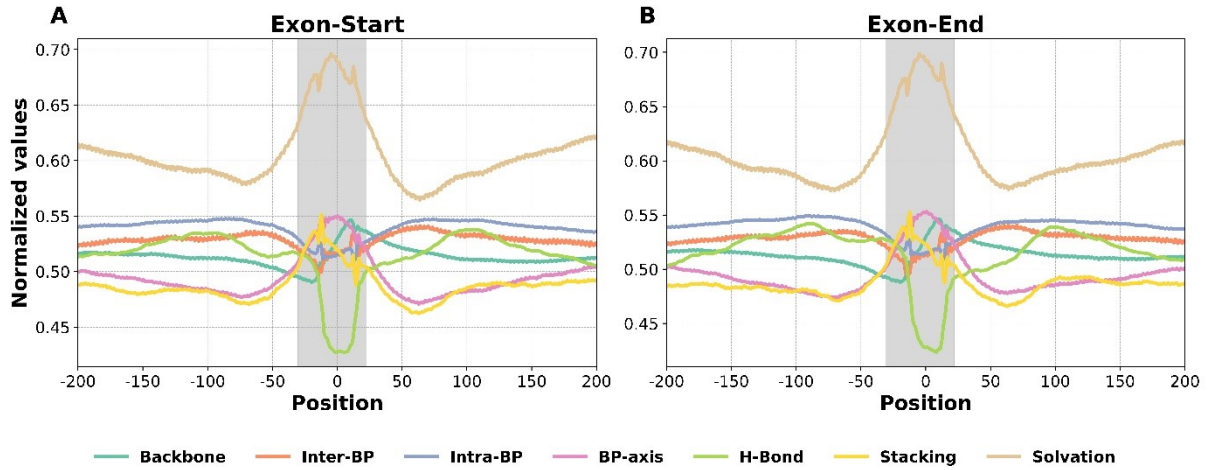


Figure S5: Profiles of the seven normalized structural and energetic parameters at the EI junctions in *Plasmodium falciparum* (Protista). (A) Exon-start, (B) Exon-end. Each line represents a major structural or energetic parameter. The four structural parameters were obtained by combining the individual parameters within that category. These parameters show the actual structural and energy change at the two boundaries.

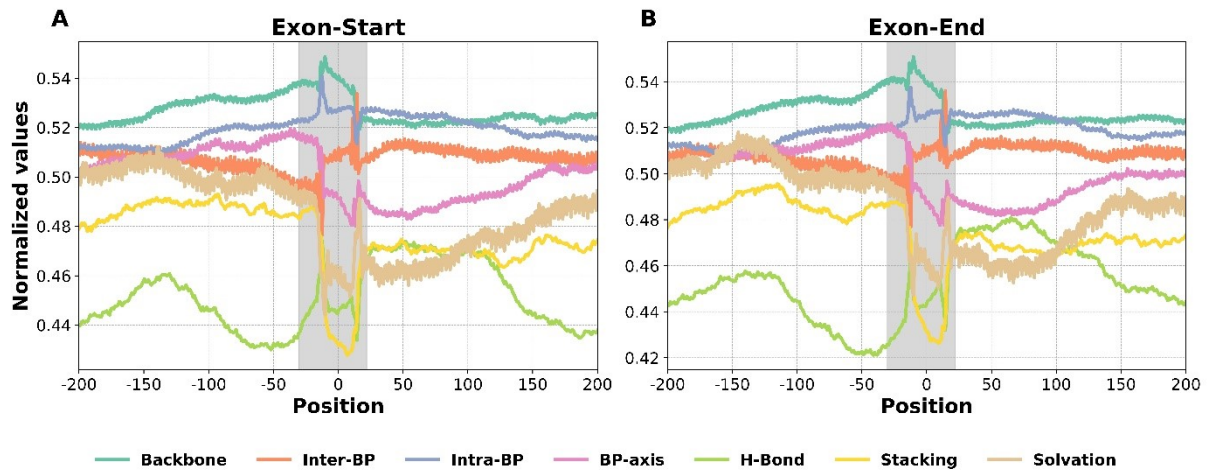


Figure S6: Profiles of the seven normalized structural and energetic parameters at the EI junctions in *Saccharomyces cerevisiae* (Fungi). (A) Exon-start, (B) Exon-end. Each line represents a major structural or energetic parameter. The four structural parameters were obtained by combining the individual parameters within that category. These parameters show the actual structural and energy change at the two boundaries.

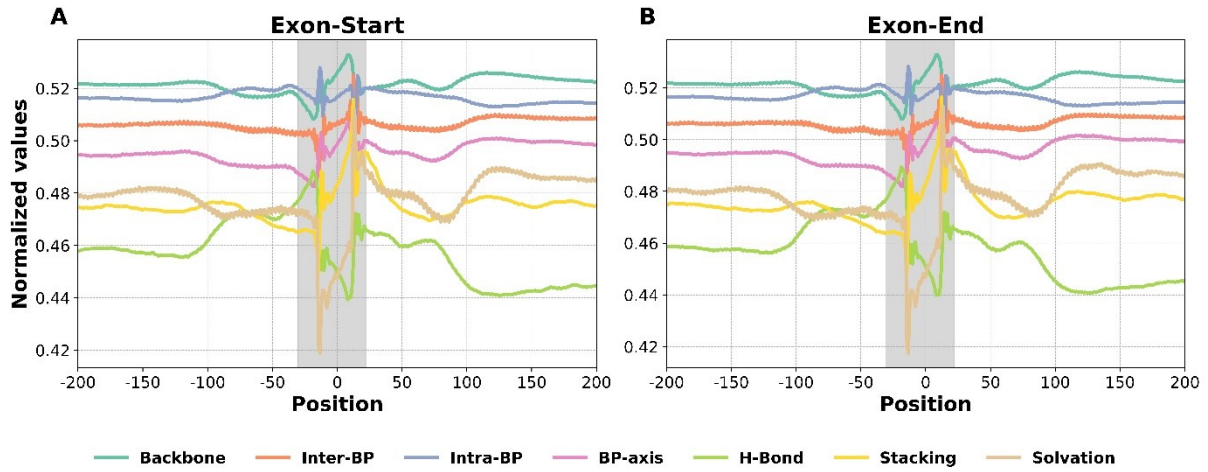


Figure S7: Profiles of the seven normalized structural and energetic parameters at the EI junctions in *Arabidopsis thaliana* (Plantae). (A) Exon-start, (B) Exon-end. Each line represents a major structural or energetic parameter. The four structural parameters were obtained by combining the individual parameters within that category. These parameters show the actual structural and energy change at the two boundaries.