The Schlick lab RNA-As-Graphs Dual Graph Resource

Our dual graph resource (available at: http://www.biomath.nyu.edu/?q=rag/dual_vertices.php) consists of two parts as shown in Figure 1:

The first part lists the 94 dual graph topologies between 2-9 vertices that correspond to existing RNA structures in the representative RNA dataset. All existing dual graph topologies are shown on the corresponding vertex page. For example, Figure 2 shows the 6 existing dual graph topologies with 3 vertices. RNA structures and chains from the representative dataset corresponding to each existing dual graph topology are also listed. For example, Figure 3 shows the list of 8 RNA PDB files and chains that correspond to the dual graph topology 3_2.

The second part contains the link to download the *RAG-3Dual database* (as a single zipped file), that contains the non-separable subgraph blocks and corresponding RNA atomic fragments. These non-separable blocks are obtained by applying dual graph partitioning to the 2D structures in the representative RNA dataset (>=2 vertices). The atomic fragments are cataloged based on their dual graph IDs.

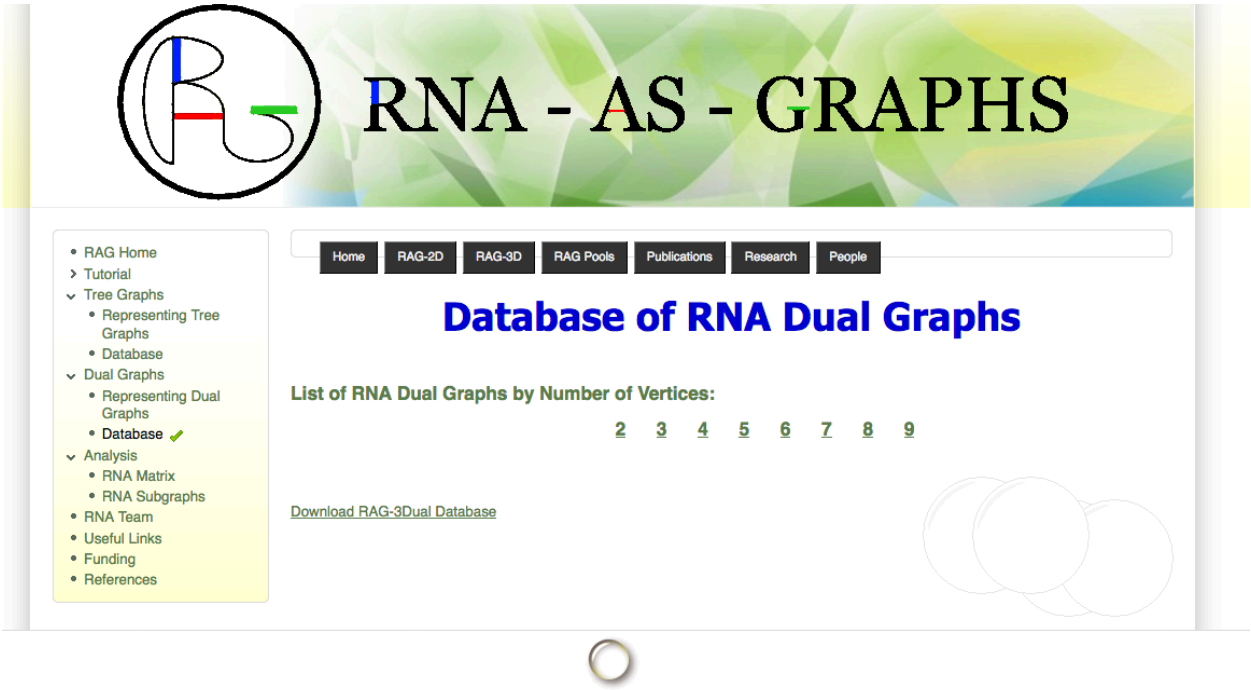

Figure 1: Two parts of our dual graph resource.

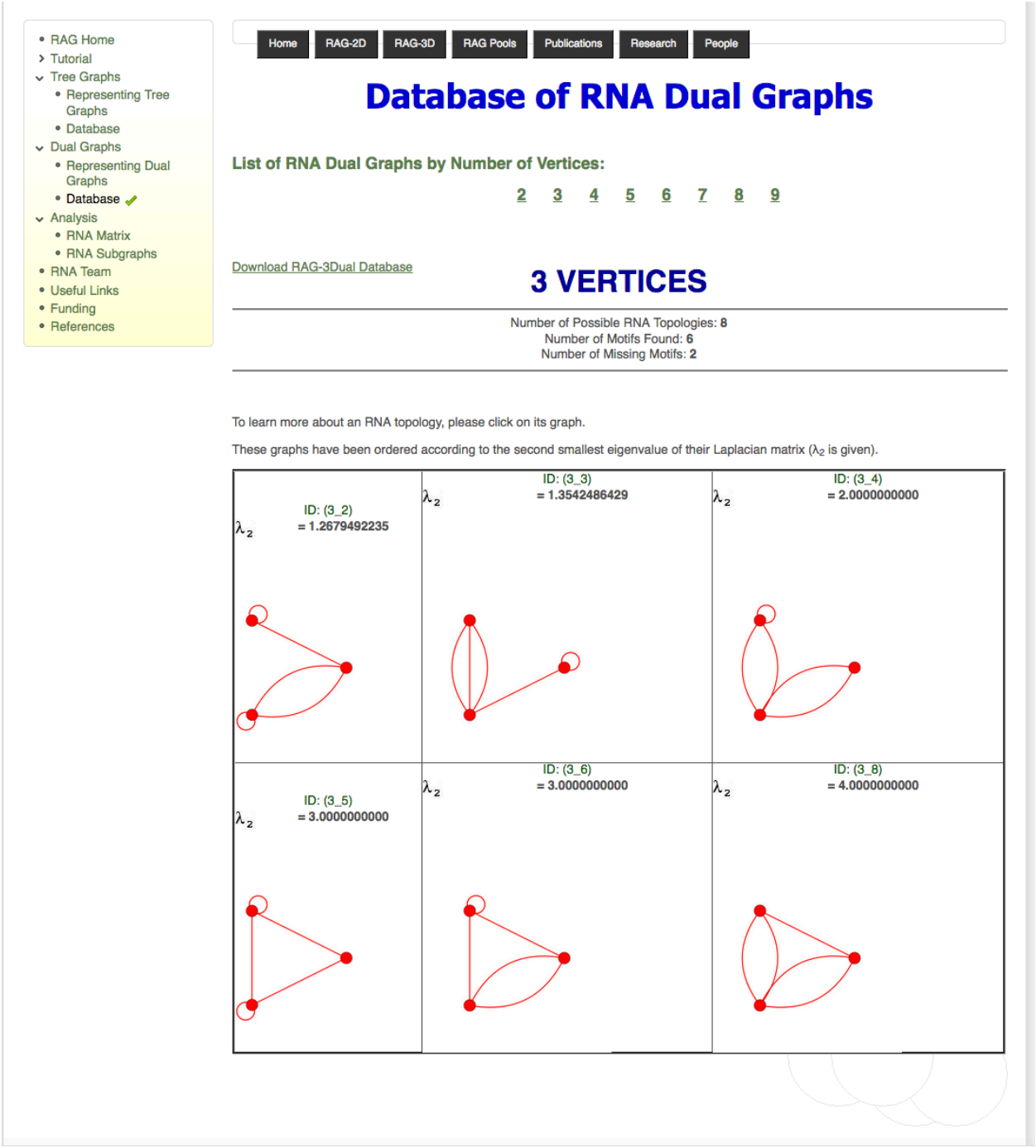

Figure 2: The 6 existing dual graph topologies with 3 vertices.

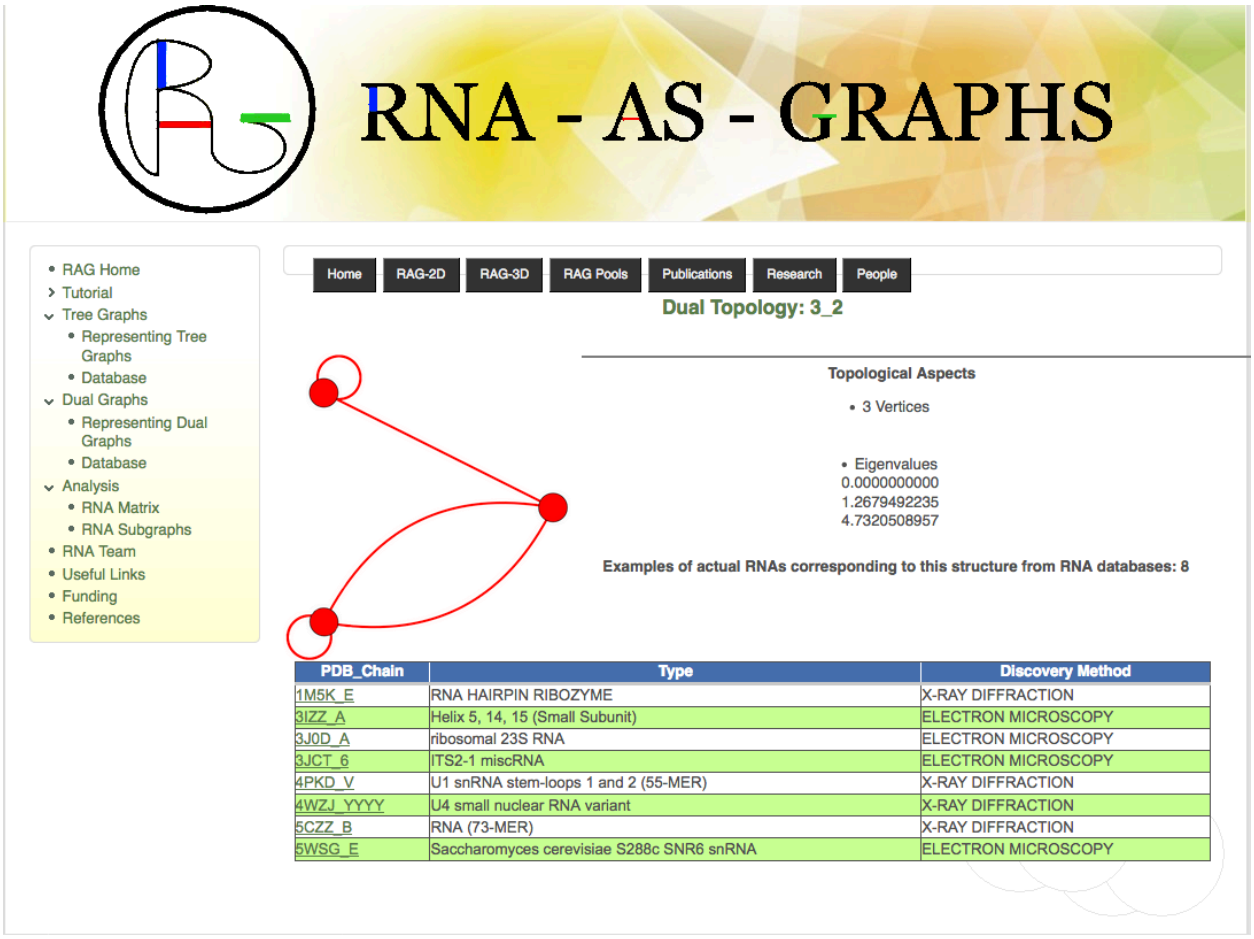

Figure 3: List of RNA PDB files and chains corresponding to the existing dual graph topology 3_2.