

Figure 2: Order of contact formation for the folding of DehI. The time,  $t_u$  at which a contact is established for the first time, |j-i| is the distance in sequence between two amino acids which have established contact. The left panel corresponds to the trajectory  $(0-6_1)$  which is shown in Figure S2 (main text), the middle panel corresponds to a trajectory belonging to pathway  $(0-4_1-6_1)$  and the right panel to another  $(0-6_1)$  trajectory. Formation of contacts between S-loop and B-loop are denoted as yellow squares. In this case high values for |j-i| correspond to the formation of the B-loop and the twist of the S-loop before the flipping of the B-loop. Regions 1-5 are the same as in Figure S1. Solid magenta circles denote contacts between the B-loop and region 4, open magenta circles denote contacts between the B-loop and region 5, Green stars denote contacts between B-loop and region 1. All these contacts are responsible for the formation of the B-loop. Black stars with low values for |j-i|, open cyan circles denoting contacts between the S-loop and region 5 are all involved in the formation of the S-loop. Yellow squares with |j-i| around 100, correspond to the formation of contacts between the major two loops (the flip of the B-loop over the S-loop). Blue triangles (1-B-loop) denote the final straightening of the C-terminus and conclude the formation of the 6<sub>1</sub> knot. The same notation is used for the middle and the right panel.