

Legends for the Supplementary Data files

Title: Supplementary Data 1

Description: Configuration file with the simulation parameters for the data shown in Fig. 2b, c, d.

Title: Supplementary Data 2

Description: Configuration file with the simulation parameters for the data shown in Fig. 3.

Title: Supplementary Data 3

Description: Configuration file with the simulation parameters for the data shown in Fig. 4.

Title: Supplementary Data 4

Description: Readme file for the xlsx files containing the submitted results of the participating labs.

Title: Supplementary Data 5

Description: Inferred FRET efficiencies and rate constants for each lab; corresponding to the data shown in Fig. 2c, d.

Title: Supplementary Data 6

Description: Inferred FRET efficiencies and rate constants for each lab; corresponding to the data shown in Fig. 2f, g.

Title: Supplementary Data 7

Description: Inferred FRET efficiencies and rate constants for each lab; corresponding to the data shown in Supp. Fig. 2b, c.

Title: Supplementary Data 8

Description: Inferred FRET efficiencies and rate constants for each lab; corresponding to the data shown in Fig. 3.

Title: Supplementary Data 9

Description: Inferred FRET efficiencies and rate constants for each lab; corresponding to the data shown in Fig. 4.

Title: Supplementary Data 10

Description: Inferred FRET efficiencies and rate constants for each lab; corresponding to the data shown in Fig. 5b, c and Supp. Figs. 4, 5, and 6. The suffix “_FS_<n>” indicates the number of FRET states for each submission.

Title: Supplementary Data 11

Description: Inferred FRET efficiencies and rate constants for each lab; corresponding to the data shown in Fig. 5e, f and Supp. Figs. 4, 5, and 6. The suffix “_FS_<n>” indicates the number of FRET states for each submission.

Title: Supplementary Data 12

Description: Inferred FRET efficiencies and rate constants for each lab; corresponding to the data shown in Fig. 5h, i and Supp. Figs. 4, 5, and 6. The suffix “_FS_<n>” indicates the number of FRET states for each submission.

Title: Supplementary Data 13

Description: Updated uncertainties of the results shown in Figs. 2 and 3 reported by the tool *FRETboard* after the ground truth was released.

Title: Supplementary Data 14

Description: Updated uncertainties of the results shown in Figs. 2, 3, 4, and Supp. Fig. 2b,c reported by the tool *StepFinding* after the ground truth was released.