Supplementary Figures

Improving Transcatheter Aortic Valve Interventional Predictability via Fluid-Structure Interaction Modeling in the Patient-Specific Anatomy

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Supplementary Fig. 1 Time-varying velocity and their respective profiles for SAV, NAV, and TAVR respectively. (A) Model-predicted time-varying velocity extracted from ascending aorta proximally to AVs. (B-D) shows the cross-sectional velocity profiles at early-, mid-accelerating-, peak-, late-decelerating, and end- systole for SAV, NAV, and TAVR, respectively.
Supplementary Fig. 2 Grid resolution used for each of the SAV, NAV, and TAVR models. Simulation was started with a mesh size of ~15 million cells. As flow dynamics became complex, local mesh refinement resulted in a constant increase of mesh size, particularly in the ascending aorta (refer Fig. 1). Near end-systole, total grid size was ~19 million.