Figure 25. Interactive VRML visualization of the geometrically correct reconstructed vessel shown in Fig. 23.
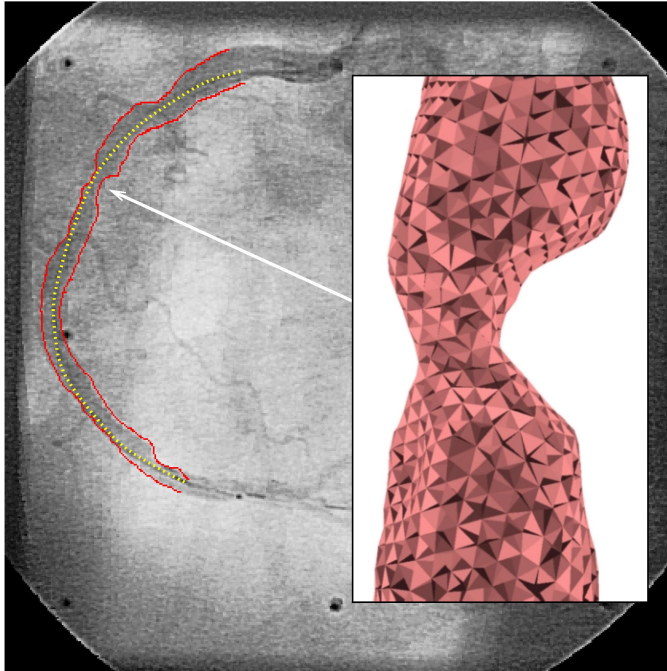
Figure 26. Extraction of the IVUS catheter path (dotted line) and the lumen from one of the angiograms used for the fusion process; the inset shows the tetrahedral mesh of the lumen after 3-D fusion.
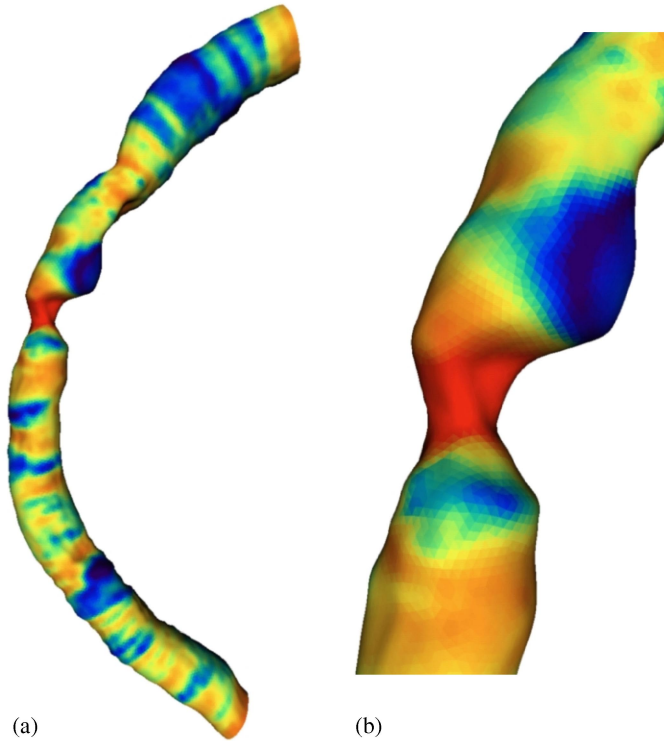
Color Addendum

(a)   (b)

Figure 27. Result of the CFD simulation using the U^2RANS system: (a) color-coded visualization of the vessel shown in Fig. 26, where red color indicates high, and blue color low shear stress, (b) zooms into the stenotic region.
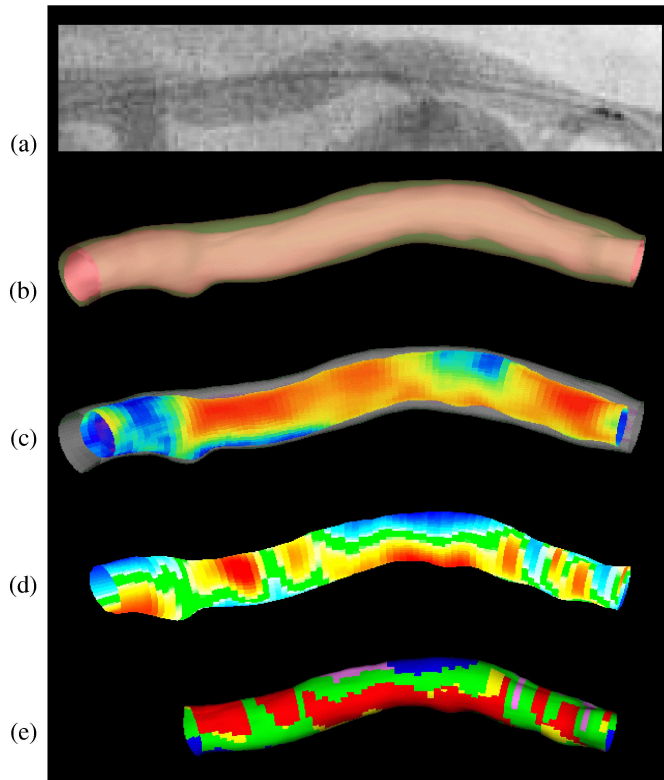
Color Addendum

Figure 28. Morphology/geometry analysis: (a) part of the original angiogram; (b) 3-D model in the same view, note that the left circumflex branch has not been modeled; (c) plaque distribution; (d) local curvature; (e) classification results of the left anterior descending branch distal of the bifurcation.