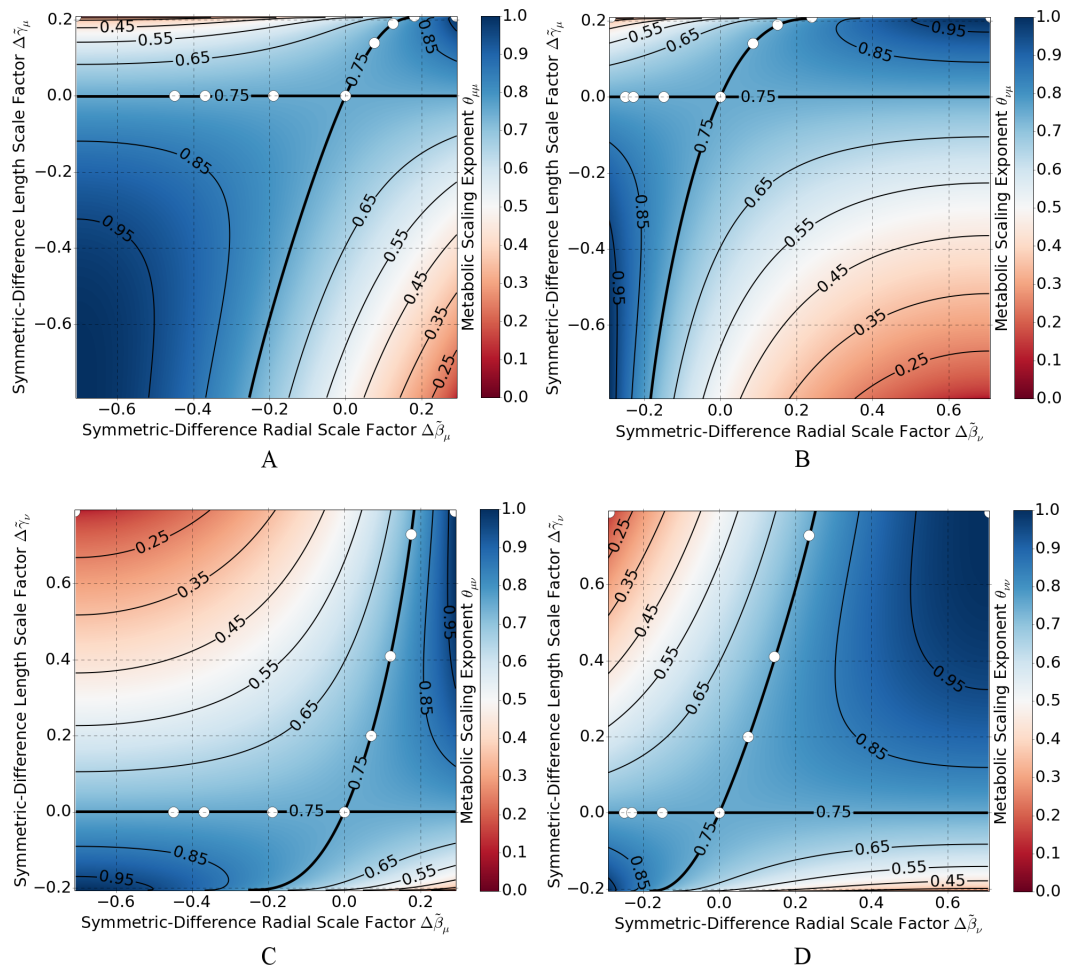


S1 Fig



**Figure 1. Colormap of Metabolic Scaling Exponent for Pulsatile Flow Using Symmetric/Difference Formalism**

The metabolic scaling exponent is graphed as a function of the *symmetric-difference* scale factors  $\Delta\beta_{\mu}$ ,  $\Delta\beta_{\nu}$ ,  $\Delta\gamma_{\mu}$ , and  $\Delta\gamma_{\nu}$  and is shown to range in value from 0 to 1. The scale factors are such that the networks are space-filling fractals that minimize energy-loss from resource transport. Contours of constant values of the metabolic scaling exponent are plotted in bold. The demarcated points correspond to the rendered trees found in Fig. 5 of the main text, and have the same ordering as those found in Fig. 4.