# Implementation of One-D Vascular Model using Structured Tree Outflow Conditions

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# One-dimensional flow of blood - governing equations

# Project goals

# Numerical Solution & Development of a Code

# Hyperbolic system and finite difference discretization

# Inflow profile and inlet boundary condition

# The structured tree

# Structured tree geometry and impedance calculation

# Outflow boundary condition using structured tree

# Implementation using method of characteristics

# Toy problem for comparison

# Flow analysis: What information can we get from such 1-dimensional, reduced order models ?

# Wave reflection phenomena - comparison with Windkessel models

# Varying terminal resistance of tree for flow regulation

# Radius of large vessels - insights on stenosis/anuerysms ?

# Concluding remarks