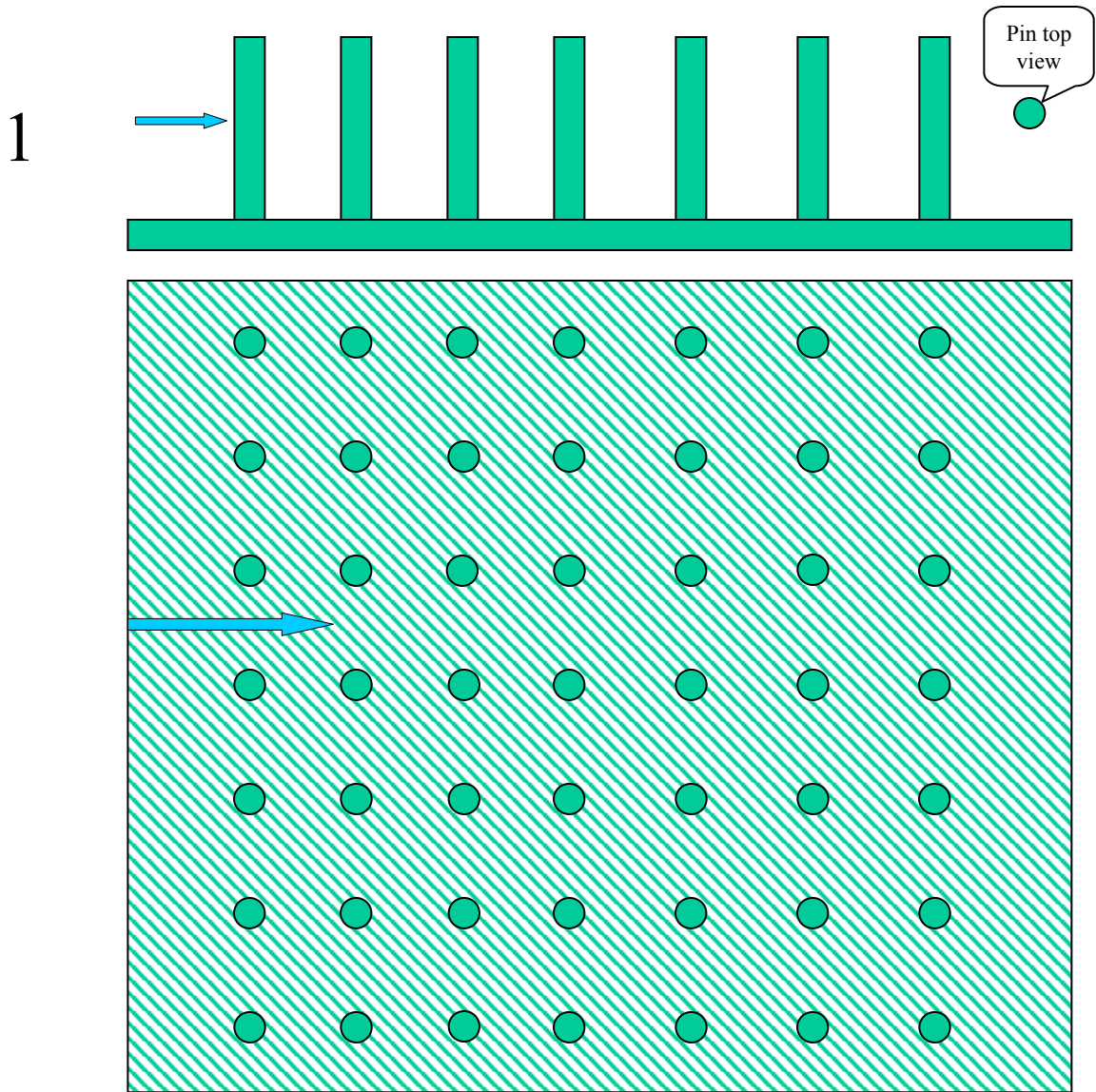
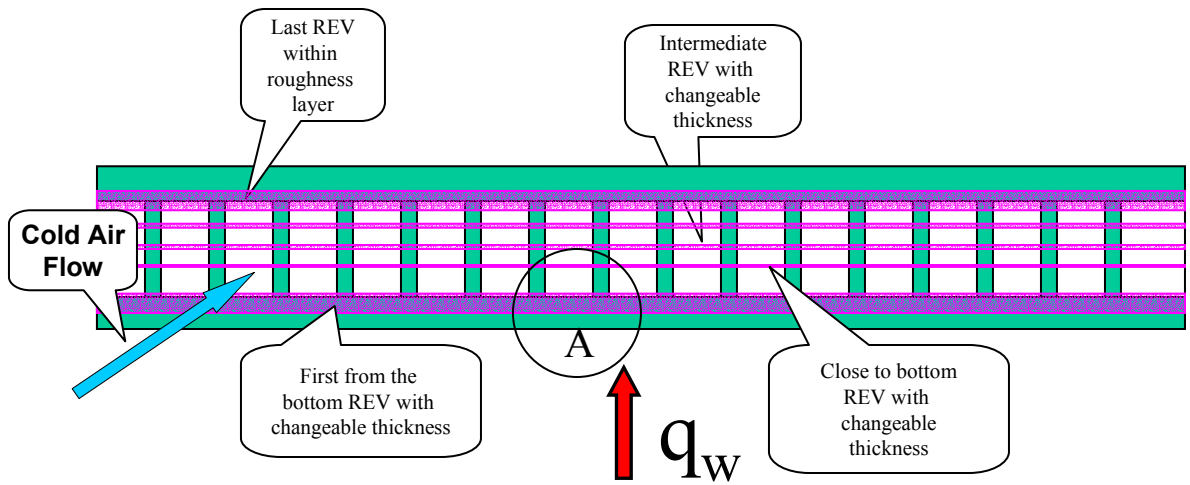


Loosely Located Round Pins Morphology for Preliminary Parametric VAT Experiments for Porous (Obstructed) Flat Channel

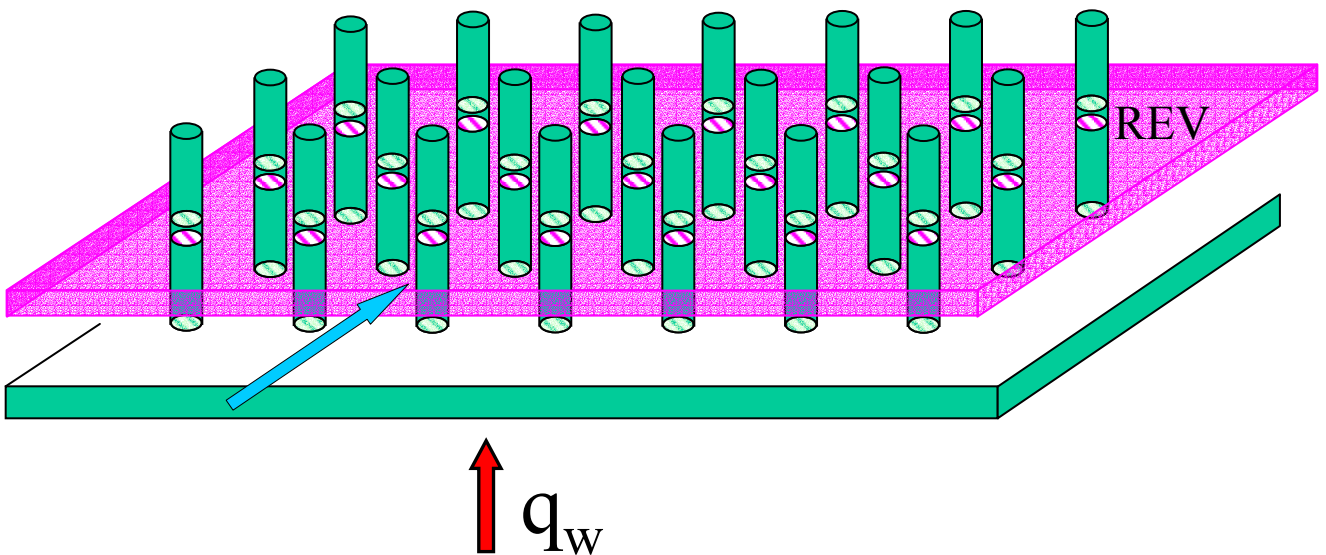


Numerical or Physical Experiment Based 1D(x) VAT Closure

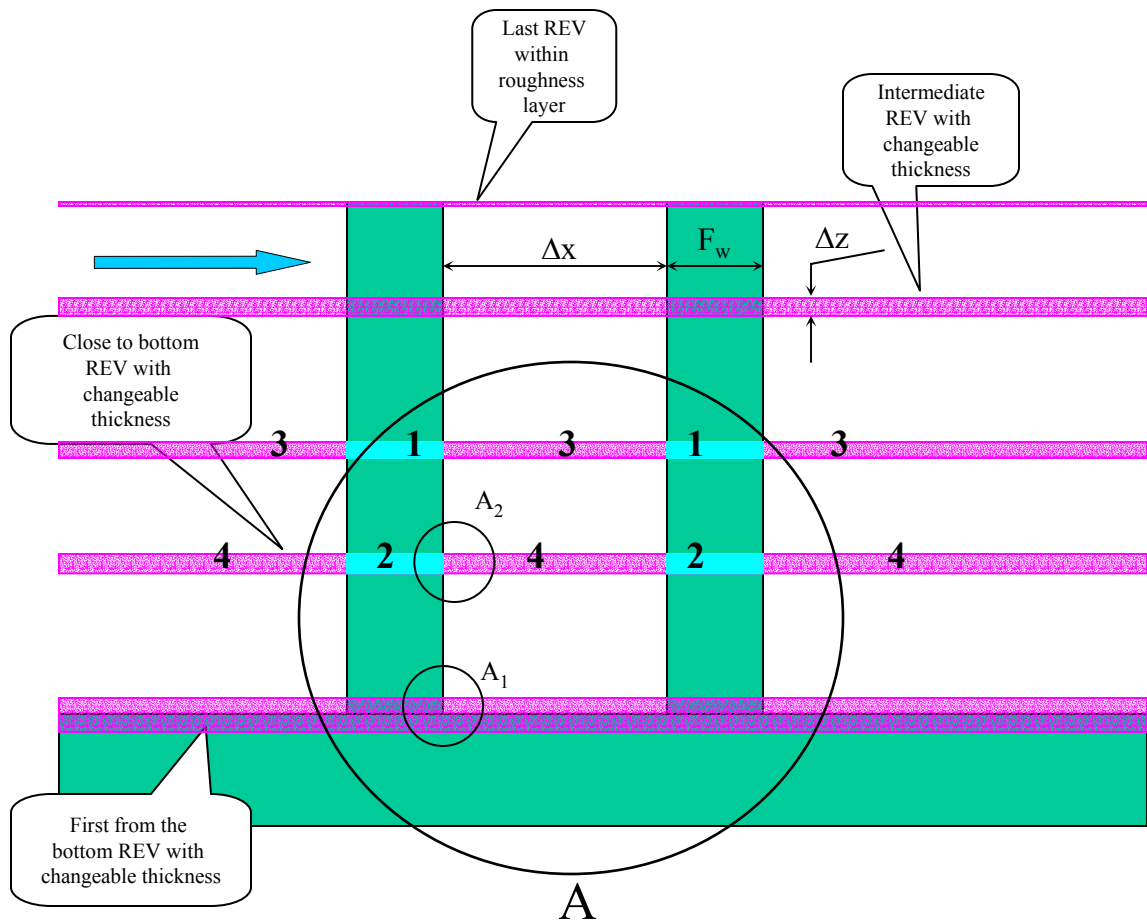


Flat Channel with Regular Pin Fins or Longitudinal Ribs

Closure Experiment - in each phase averaging done separately



More precise view of averaging volumes close to bottom of enhancing elements



Solid phase temperature 1 and 2 and fluid phase 3 and 4 integrates in volumes separately for each REV and then represents point temperatures in the next scale of the problem - so, the closure differentiation and integration operators to be performed over those fields