A SOLUTION MINING CODE FOR TWO-DIMENSIONAL FORCED CONVECTIVE FLOW PART 1: THE RECTANGULAR COORDINATE SYSTEM -- FLOW IN FRACTURES OF VARIABLE WIDTH

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ABSTRACT

The two-dimensional Navier-Stokes equations and the concentration equation are solved for laminar flow in fractures with solution mining. The solutions, giving flow rates, pressure drops and wall recession are valid for flows where forced convection, rather than density gradient, is the dominant driving mechanism. General implications of the results and practical applications are discussed. The code is IBM PC compatible.