1014-35-1422    **Beatrice Pelloni\*** (`b.pelloni@rdg.ac.uk`), Department of Mathematics, University of Reading, Reading, UK RG6 6AX. *The solution of linear boundary value problems on time-dependent domains.*

We shall review the Fokas method for solving linear evolution PDEs posed on time-dependent domains. This method involves the solution of a d-bar problem, and yields the Dirichlet to Neumann map in terms of a Volterra integral equation with an exponentialy decreasing kernel.The generalisation to other problems and a new approach for inverting linear and certain nonlinear integral transforms, will also be discussed. (Received September 28, 2005)