

MR1295640 (95e:65119) 65N99 65M99 76D05 76M25

Glowinski, R. [[Glowinski, Roland](#)] (1-HST);

Périaux, J. [[Périaux, Jacques F.](#)] (F-AMD);

Ravachol, M. [[Ravachol, Michel](#)] (F-INRIA);

Pan, T.-W. [[Pan, Tsorng-Whay](#)] (1-HST);

Wells, R. O. [[Wells, Raymond O., Jr.](#)] (1-RICE);

Zhou, X. [[Zhou, Xiaoliang](#)] (1-RICE)

★Wavelet methods in computational fluid dynamics. (English summary)

*Algorithmic trends in computational fluid dynamics (1991)*, 259–276, ICASE/NASA LaRC Ser., Springer, New York, 1993.

Summary: “We discuss the numerical solution of boundary value problems for partial differential equations by methods relying on compactly supported wavelet approximations. After defining compactly supported wavelets and stating their main properties we discuss their application to boundary value problems for partial differential equations, giving particular attention to the treatment of the boundary conditions. Finally, we discuss application of wavelets to the solution of the Navier-Stokes equations for incompressible viscous fluids.”

{For the collection containing this paper see [MR1295630](#)}