

Re: looking for package for convection–diffusion PDEs

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- *From:* Mirko.Vukovic@xxxxxxxxxx
 - *Date:* Fri, 25 Jan 2008 04:42:46 –0800 (PST)
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On Jan 25, 2:21 am, Torsten Hennig <Torsten.Hen...@xxxxxxxxxxxxxxxxxx> wrote:

Hi,

Does anyone know of a fortran package to solve the >convection–diffusion PDE's (maybe using the finite volume formulation)? I am >looking to solve a chemically reactive flow problem.

I saw Clawpack, but that one is for hyperbolic PDE's. It >does offer one example of the advection/diffusion problem (<http://www.amath.washington.edu/~claw/>), but not being an >expert, I am wondering how robust clawpack is for such problems.

Thank you,

Mirko

Some questions concerning your request:

Do you want to model in 1d, 2d or 3d ?

2d–azimuthally symmetric

Is the flow convection– or diffusion–dominated ?

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I think the flows are more diffusion dominated, but I could have
borderline cases.

Best wishes
Torsten.

Thanks,

Mirko

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