I N TE R E S T IN THE WORKSHOP

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Note: The following subsections are designed to aid the directors in determining the appropriateness of the course material for your intended purposes. Please take great care in answering these questions.

Describe briefly your current computing and software development activities, and how you anticipate this workshop will impact your work.

What specific skills do you wish to acquire or improve during this school?

What broader impact to your work environment do you anticipate from participating at the workshop?

TECHNICAL SKILLS

Knowledge of Programming/Script Languages

	good	fair	poor	
Fortran77	❑	❑	❑	
Fortran90/95	❑	❑	❑	
C	❑	❑	❑	
C++	❑	❑	❑	
Python	❑	❑	❑	
Tcl	❑	❑	❑	
Perl	❑	❑	❑	
Shell Script (Bash)	❑	❑	❑	
Other: _____	❑	❑	❑	(optional)
Other: _____	❑	❑	❑	(please specify)

Knowledge of Linux/Unix Command Line Interface

good	fair	poor
❑	❑	❑

Knowledge of Parallel Computing/Programming:

	Developer	User	None
MPI	❑	❑	❑
OpenMP	❑	❑	❑
CUDA/OpenCL	❑	❑	❑
Pthreads/Intel TBB	❑	❑	❑

Which Editor/Tool Do You Use For Programming (mark all that apply):

	frequently	sometimes	never	
Eclipse	❑	❑	❑	
Emacs/XEmacs	❑	❑	❑	
Gedit	❑	❑	❑	
Kdevelop	❑	❑	❑	
Netbeans	❑	❑	❑	
Vi/Vim	❑	❑	❑	
Visual Studio	❑	❑	❑	
Other: _____	❑	❑	❑	(optional)
Other: _____	❑	❑	❑	(please specify)

Which Platform Do You Use <u>Primarily</u> For Your Computational Work?

		Mark if Multi-Core or Multi-CPU?
Linux Cluster	❑	❑
Linux Desktop	❑	❑
Linux Laptop	❑	❑
Windows Desktop	❑	❑
Windows Laptop	❑	❑
Other:	❑	(please specify:_____)

Knowledge of Source Code Management Systems (CVS/Subversion/Git/Bazaar/Mercurial/RCS):

Good ❑ Average ❑ Poor ❑

(please specify which one you are the most experienced in, if at all:_____)

Describe your previous experience with QE or other electronic structure software as user and as developer:

Knowledge of DFT and GIPAW theory as implemented in QE in the following areas:

	good	fair	poor
Quantum mechanics basics (Time independent Schroedinger equation for atoms and model potentials) perturbation theory, classical electromagnetism	❑	❑	❑
Solid state physics basics (Bloch theorem, Fourier transform, working with planewaves, reciprocal space etc)	❑	❑	❑
Pseudopotential approximation	❑	❑	❑
Functionals, functional derivatives, buildig the DFT Hamiltonian	❑	❑	❑
Self consistent solution of DFT Hamiltonian	❑	❑	❑
PAW theory and reconstruction of all-electron wfc.	❑	❑	❑
Nuclear magnetic resonance – intro level theory	❑	❑	❑
Electron spin resonance – intro level theory	❑	❑	❑
Linear response within DFT	❑	❑	❑
Ab initio NMR/EPR with all electron methods	❑	❑	❑
Ab initio NMR/EPR with pseudopotentials	❑	❑	❑

How much time can you dedicate to distance-learning material of the workshop?

_____hours/week