

MAR16-2015-005263

Abstract for an Invited Paper
for the MAR16 Meeting of
the American Physical Society

The CECAM Electronic Structure Library: community-driven development of software libraries for electronic structure simulations
MICAEL OLIVEIRA, Universite de Liege

The CECAM Electronic Structure Library (ESL) is a community-driven effort to segregate shared pieces of software as libraries that could be contributed and used by the community. Besides allowing to share the burden of developing and maintaining complex pieces of software, these can also become a target for re-coding by software engineers as hardware evolves, ensuring that electronic structure codes remain at the forefront of HPC trends. In a series of workshops hosted at the CECAM HQ in Lausanne, the tools and infrastructure for the project were prepared, and the first contributions were included and made available online (<http://esl.cecama.org>). In this talk I will present the different aspects and aims of the ESL and how these can be useful for the electronic structure community.