Technical Report

Ada and Many-core Platforms

Luis Miguel Pinho
Stephen Michell
Brad Moore
Ada and Many-core Platforms

Luis Miguel Pinho, Stephen Michell, Brad Moore

CISTER Research Unit
Polytechnic Institute of Porto (ISEP-IPP)
Rua Dr. António Bernardino de Almeida, 431
4200-072 Porto
Portugal
Tel.: +351.22.8340509, Fax: +351.22.8340509
E-mail: lmp@isep.ipp.pt
http://www.cister.isep.ipp.pt

Abstract

The new many-core platforms make it difficult for the programmer to provide efficient mapping of Ada programs onto the underlying non-uniform hardware. This paper discusses how existing Ada concepts such as Dispatching Domains and the Distributed Systems Annex can be extended or changed to better support the hierarchical and heterogeneous nature of these platforms.