



Toward New Era of Computing: From Devices to Applications

Aida Todri-Sanial

► To cite this version:

Aida Todri-Sanial. Toward New Era of Computing: From Devices to Applications. What's next in Computing?, Jul 2020, Montpellier (virtual), France. lirmm-03025126

HAL Id: lirmm-03025126

<https://hal-lirmm.ccsd.cnrs.fr/lirmm-03025126>

Submitted on 8 Jan 2021

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

IBM Future Computing Event 7-9 July 2020

Title: Toward New Era in Computing: From Devices to Applications

Abstract: This talk aims to give a bottom-up overview on novel computing paradigms covering aspects from devices, interconnects, architectures to applications. Non Von-Neumann architectures such as neuromorphic and quantum computing progress and challenges are discussed including some of our current research on these topics.

Short Bio: Aida Todri-Sanial has a PhD degree in electrical and computer engineering from the University of California Santa Barbara, CA in 2009. She is a Director of Research at CNRS attached to LIRMM. Her research is focused on physical design for emerging technologies. Currently, she is exploring Neuromorphic Computing to enable AI at the Edge and Quantum Computer-Aided Design methods for enabling quantum circuit design on NISQ hardware.