2021 IEEE/ACM Ninth Workshop on Education for High Performance Computing (EduHPC 2021)

St. Louis, Missouri, USA 14 November 2021



IEEE Catalog Number: CFP21A50-POD ISBN: 978-1-6654-1117-2

Copyright © 2021 by the Institute of Electrical and Electronics Engineers, Inc. All Rights Reserved

Copyright and Reprint Permissions: Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

*** This is a print representation of what appears in the IEEE Digital Library. Some format issues inherent in the e-media version may also appear in this print version.

 IEEE Catalog Number:
 CFP21A50-POD

 ISBN (Print-On-Demand):
 978-1-6654-1117-2

 ISBN (Online):
 978-1-6654-1116-5

Additional Copies of This Publication Are Available From:

Curran Associates, Inc 57 Morehouse Lane Red Hook, NY 12571 USA Phone: (845) 758-0400

Fax: (845) 758-2633

E-mail: curran@proceedings.com Web: www.proceedings.com



2021 IEEE/ACM Ninth Workshop on Education for High Performance Computing (EduHPC) EduHPC 2021

Table of Contents

Message from the Workshop Chairs Workshop Organization	
Diverse Approaches to Teaching HPC	
Experience and Practice Teaching an Undergraduate Course on Diverse Heterogeneous Architectures	1
The Hour of Cyberinfrastructure (Hour of CI): Early Findings from Pilot Study to Build Cyber Literacy for GIScience	9
Educating HPC Users in the use of Advanced Computing Technology	16
Tools for Teaching HPC	
Visualizing Parallel Dynamic Programming using the Thread Safe Graphics Library	24
Automating Testing of Visual Observed Concurrency Prasun Dewan (University of North Carolina), Andrew Wortas (University of North Carolina), Zhizhou Liu (University of North Carolina), Samuel George (University of North Carolina), Bowen Gu (University of North Carolina), and Hao Wang (University of North Carolina)	32

EduHPC-21 Lightning Talks

Lightning Talks of EduHPC 2021	43
EduHPC-21 Peachy Assignments	
Peachy Parallel Assignments (EduHPC 2021) Henri Casanova (University of Hawaii, USA), Rafael Ferreira da Silva (National Center for Computational Sciences, Oak Ridge National Laboratory, USA), Arturo Gonzalez-Escribano (Universidad de Valladolid, Spain), Herman Li (University of Hawaii, USA), Yuri Torres (Universidad de Valladolid, Spain), and David Bunde (Knox College, USA)	51
	=0