

# International Fortran Conference 2021



University of  
Zurich<sup>UZH</sup>





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# Closing Remarks FortranCon 2021

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Tiziano Müller<sup>a</sup> `tiziano.mueller@chem.uzh.ch`

Alfio Lazzaro<sup>b</sup> `alfio.lazzaro@hpe.com`

FortranCon 2021 @ University of Zurich, 23.-24. September 2021

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<sup>a</sup>Department of Chemistry, University of Zurich

<sup>b</sup>HPE HPC/AI EMEA Research Lab, HPE Switzerland

# Fortran at the Intersection:

## Synergies Arising from the Interplay Between Paradigms

Damian Rouson



## Particle Simulations with Julia

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Leandro Martínez

Institute of Chemistry - University of Campinas


<http://m3g.iqm.unicamp.br> - <https://github.com/m3g>

## Outline

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- Elements of a particle simulation
- Benchmarking vs. a conventional compiled language (Fortran)
- Exploring the generic character of functions
- Differentiable simulations and parameter fitting
- Using cell lists
- An efficient and generic cell list implementation
- The Packmol strategy
- Benchmarking vs. NAMD
- Remarks

# Fortran-lang Minisymposium

<b>The State of Fortran</b>	<i>Laurence Kedward</i>
<i>ZOOM, Virtual</i>	16:50 - 17:20
<b>Finish AST generation in LFortran</b>	<i>Thirumalai Shaktivel</i>
<i>ZOOM, Virtual</i>	17:20 - 17:25
<b>Supporting Arrays and Allocatables in LFortran</b>	<i>Gagandeep Singh</i> 
<i>ZOOM, Virtual</i>	17:25 - 17:30
<b>Implementing Fortran Standardese within LFortran</b>	<i>Rohit Goswami</i> 
<i>ZOOM, Virtual</i>	17:30 - 17:35
<b>Discussion LFortran</b>	
<i>ZOOM, Virtual</i>	17:35 - 17:40
<b>What's new in the Fortran Standard Library?</b>	<i>Nathaniel Shaffer</i>
<i>ZOOM, Virtual</i>	17:40 - 18:00
<b>Improving Strings Support in Fortran (GSoC Project)</b>	<i>Aman Godara</i> 
<i>ZOOM, Virtual</i>	18:00 - 18:05
<b>Linked lists for stdlib</b>	<i>Chetan Karwa et al.</i> 
<i>ZOOM, Virtual</i>	18:05 - 18:10
<b>Discussion stdlib</b>	
<i>ZOOM, Virtual</i>	18:10 - 18:15
<b>Fortran package manager</b>	<i>Sebastian Ehlert</i>
<i>ZOOM, Virtual</i>	18:15 - 18:35
<b>Handling Compiler Flags in fpm (GSoC)</b>	<i>Jakub Jelinek</i> 
<i>ZOOM, Virtual</i>	18:35 - 18:40
<b>Discussion fpm</b>	
<i>ZOOM, Virtual</i>	18:40 - 18:45

- In average 80 attendees connected via Zoom!
- A lot of activity on Slack (79 members)!



Thanks to all speakers, members of BCS Fortran Specialist group, conveners, and participants!

## Steering Committee

- Alfio Lazzaro, HPE CH
- Tiziano Müller, UZH

## Scientific Committee

- Harvey Richardson, HPE UK (chair)
- Alessandro Fanfarillo, AMD
- Steve Lionel, retired Intel
- John Reid, JKR Associates and Rutherford Appleton Laboratory
- Anton Shterenlikht, HPE UK
- Nathan Sircombe, ARM

# Funding

We gratefully acknowledge the funding of this event by the UZH and the UZH Graduate Campus via its GRC Grant.





All presentations and recordings will be made available on  
our YouTube channel.

See you at the FortranCon 2023!