Introduction bwHPC and bwHPC-C5

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# Abstract

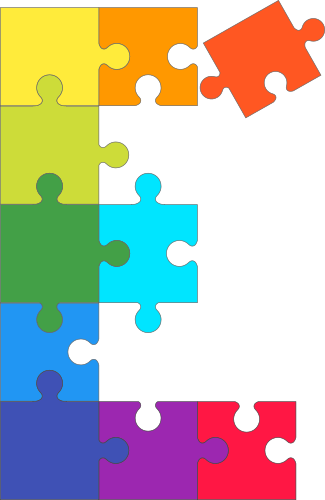
The aims of the project bwHPC-C5 are the coordination of federated support for users of high performance computing (HPC) in the state of Baden-Württemberg and the implementation of all its related measures and activities.

# 1 Introduction

The project bwHPC-C5 is part of the current implementation concept bwHPC for high performance computing in Baden-Württemberg [1].

# 2 Resources

High performance computing in the state of Baden-Württemberg has a long tradition. The current implementation concept for Baden-Württemberg’s high performance computing aims for the implementation of HPC clusters according a performance pyramid (Fig. 1), whereas HPC clusters are classified with respect to peak performance and scalability.



**Figure 1:** E-Science-Tage 2019 Logo.

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The HPC entrance level consists of the bwUniCluster (bw = Baden-Württemberg, Uni = Universal/University) and 4 bwForClusters (For = Forschung, German for Research) (Tab. 1). The latter ones are customized for scientific areas according to bwHPC.

| Cluster | Location |
| --- | --- |
| bwUniCluster | Karlsruhe |
| bwForCluster JUSTUS | Ulm |
| bwForCluster MLS&WISO | Heidelberg/Mannheim |
| bwForCluster NEMO | Freiburg |
| bwForCluster BinAC | Tübingen |

**Table 1:** bwHPC clusters (entrance level).

# 3 Support

The project bwHPC-C5 acts as an interface between scientists and the HPC systems. An unified statewide user support is coordinated federatively. The establishment of HPC competence centers unites technical experts and field specialists. In this way, scientific communities are bound closer to Baden-Württemberg’s HPC systems which become increasingly visible.

# 4 Conclusions

Many publications have been achieved since end of 2013 by using the bwHPC Clusters (bwUniCluster, bwForClusters, pre bwForClusters, bwGRiD).

# Acknowledgements

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# References

[1] Hartenstein, H., T. Walter, and P. Castellaz. “Aktuelle Umsetzungskonzepte der Universitäten des Landes Baden-Württemberg für Hochleistungsrechnen und datenintensive Dienste.” Praxis der Informationsverarbeitung und Kommunikation, Band 36, Heft 2 (2013): 99-108.

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