

The BioDynaMo project: Experience report

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Abstract

© 2017, IGI Global. All rights reserved. Computer simulations have become a very powerful tool for scientific research. Given the vast complexity that comes with many open scientific questions, a purely analytical or experimental approach is often not viable. For example, biological systems comprise an extremely complex organization and heterogeneous interactions across different spatial and temporal scales. In order to facilitate research on such problems, the BioDynaMo project aims at a general platform for computer simulations for biological research. Since scientific investigations require extensive computer resources, this platform should be executable on hybrid cloud computing systems, allowing for the efficient use of state-of-the-art computing technology.

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