Reviewer Report

Title: Optimized Distributed Systems Achieve Significant Performance Improvement on Sorted Merging of Massive VCF Files

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Reviewer name: Tomasz Gambin

Reviewer Comments to Author:

Authors designed, implemented and evaluated three strategies to perform sorted merging of genomic variant data using distributed processing engines. They demonstrated that proposed approaches outperform typical single-node solutions (such as VCF-tools), and allows to process larger datasets because of their scalability. The work improves our knowledge in adapting Big Data tools for genomic variant analysis and provide novel, efficient tools for bioinformatics community. Major comment: Authors did not mention the problem of dealing with multi-allelic sites (genomic positions with more than 2 different alleles), which is especially important when working with large-scale sequencing data. Minor comment: Please, synchronized formatting of subsections.

Level of Interest

Please indicate how interesting you found the manuscript: An article of importance in its field

Quality of Written English

Please indicate the quality of language in the manuscript: Needs some language corrections before being published

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