A fast integration method for translating-pulsating source Green's function in Bessho form

Bessho型三维移动脉动源格林函数快速计算方法研究

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Main goal of this paper

A fast integration method for Bessho form translating-pulsating source Green's Function is proposed.

Main aspects involved in the fast integration method

- Analysis of the characteristics of this function
- Gaussian quadrature rule is used to eliminate the infinite jump discontinuous node
- Variable substitution method and steepest descent integration method are adopted to evaluate highly oscillate part of this function
- Self-compatible integration method in parametric domain is proposed
- The false singularities point is analyzed

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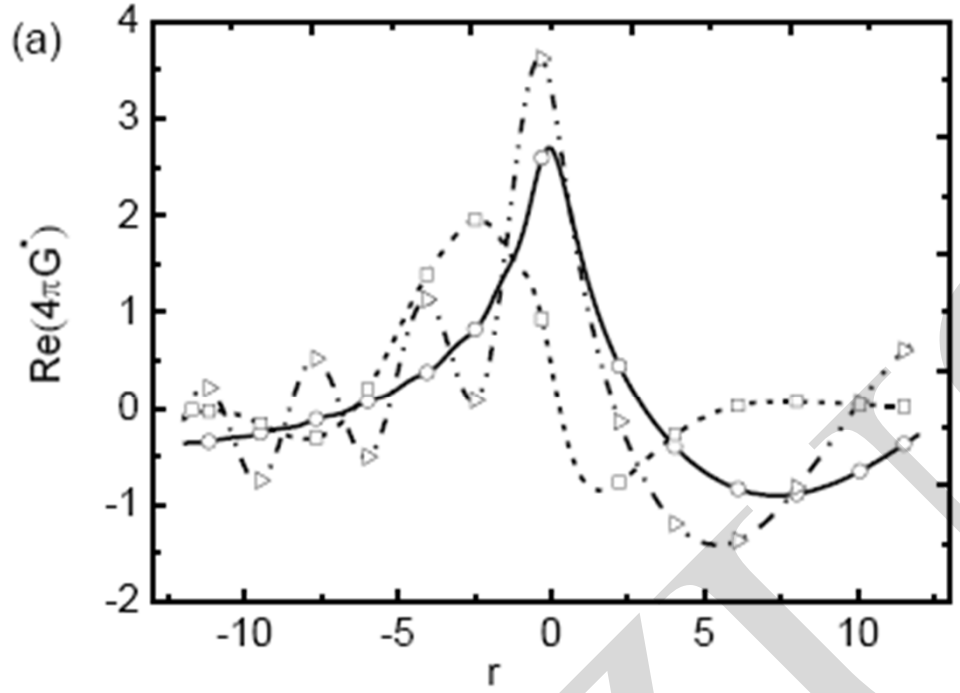
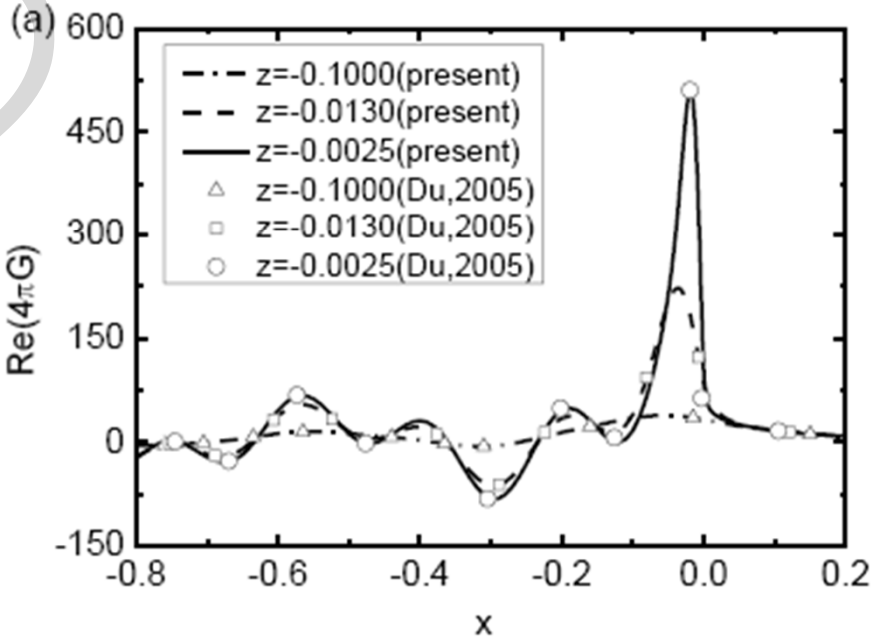
Computational model and results



- Agree well with existing results



- Time consumed is about $4*10^{-3}$~ $6*10^{-3}$ s

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