

Fortran codes for computing the acoustic field surrounding a vibrating plate by the Rayleigh integral method

(Click on link above to download document)

This paper describes the author's RIM3 Fortran code. RIM3 delivers a computational solution to the acoustic field produced by a vibrating plate placed on an infinite baffle. The mathematical model is based on the Rayleigh integral. The method is implemented in three-dimensions by subroutine RIM3 in Fortran, which is made freely available for download. The subroutine is applied to test cases and results are given. The software is available as open source.

Further information on the BEM can be found at www.boundary-element-method.com

Published in the proceedings of the conference on MATHEMATICAL METHODS, COMPUTATIONAL TECHNIQUES AND INTELLIGENT SYSTEMS (MAMECTIS '08), Corfu, Greece, October 26-28, 2008. pp364-369. ISBN 9789604740123