

A Comparison of DHW Algorithm for Temperature Distribution Calculation with Fourier's Algorithm for Transmission of Heat Between Discrete Bodies

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In this paper, our Dumped Heat Wave (DHW) algorithm for calculation of temperature distribution in a homogeneous finite medium [1-2] is compared with earlier Fourier's algorithm for transmission of heat between discrete bodies [3].

- [1] J. Gembarovic, M. Löffler, and J. Gembarovic Jr., *Appl. Math. Model.* **28**, 173 (2004).
- [2] M. Löffler, J. Gembarovic, and J. Gembarovic Jr., *A New Way of Modelling Transport Processes*, in **Thermal Conductivity 26** Thermal Expansion 14, Eds. R.B. Dinwiddie, R. Mannello (Lancaster, PA: DEStech Publications, 2005) p. 123.
- [3] J. Fourier, *The Analytical Theory of Heat*, Translated, with notes, by Alexander Freeman, New York, Dover Publishers, p. 228.