

FOURIER TRANSFORMS AS A TOOL FOR STUDYING PHASE TRANSFORMATIONS MODELLED USING THE PHASE FIELD METHOD

Benson Muite¹, Mogadalai Gururajan²

¹*Institute of Computer Science, University of Tartu, J.Liivi 2, 50402 Tartu, Estonia*

²*Department of Metallurgical Engineering and Materials Science, Indian Institute of Technology*

Bombay, Powai Mumbai, 400076 India

e-mail of presenting author: benson.muite@ut.ee

The phase field method is often used to study pattern formation[1,2,3,4]. For many material scientists, understanding patterns formed during phase transformations can be helpful in elucidating material characteristics. Often, intricate patterns can be formed which require high resolution simulations[5]. By using parallel computers and existing libraries[6], it is possible for a material scientist to simulate complex pattern formation induced by crystallographic group symmetries during phase transformations by solving the associated partial differential equations[7].

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