Accepted Manuscript

Stability of Temperature Modulated Convection in a Vertical Fluid Layer

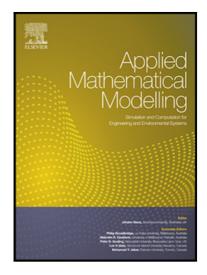
Jitender Singh, Renu Bajaj

PII: \$0307-904X(18)30212-9 DOI: 10.1016/j.apm.2018.05.002

Reference: APM 12266

To appear in: Applied Mathematical Modelling

Received date: 22 August 2017 Revised date: 23 April 2018 Accepted date: 3 May 2018



Please cite this article as: Jitender Singh, Renu Bajaj, Stability of Temperature Modulated Convection in a Vertical Fluid Layer, *Applied Mathematical Modelling* (2018), doi: 10.1016/j.apm.2018.05.002

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

ACCEPTED MANUSCRIPT

Highlights

- Time-periodic modulation of boundary temperatures on natural convection is consid- ered.
- Floquet analysis of the basic flow is done leading to a generalized eigenvalue problem.
- The numerical results are computed using MATLAB programming.
- The instability appears in form of harmonic or subharmonic oscillations.
- Transition between these oscillations occurs through a bicritical state.

Download English Version:

https://daneshyari.com/en/article/8051256

Download Persian Version:

https://daneshyari.com/article/8051256

<u>Daneshyari.com</u>