

Accepted Manuscript

Title: Approximate Equations to Estimate Heat Flow From Floors to Attain Desired Room Temperatures in a Simple House

Author: Joe R. Zhao Yizhou Sang Jiaojiao Sun Bin Chen
Xueyan Zhang R.J. Kerekes



PII: S0378-7788(16)31141-0
DOI: <http://dx.doi.org/doi:10.1016/j.enbuild.2016.10.015>
Reference: ENB 7074

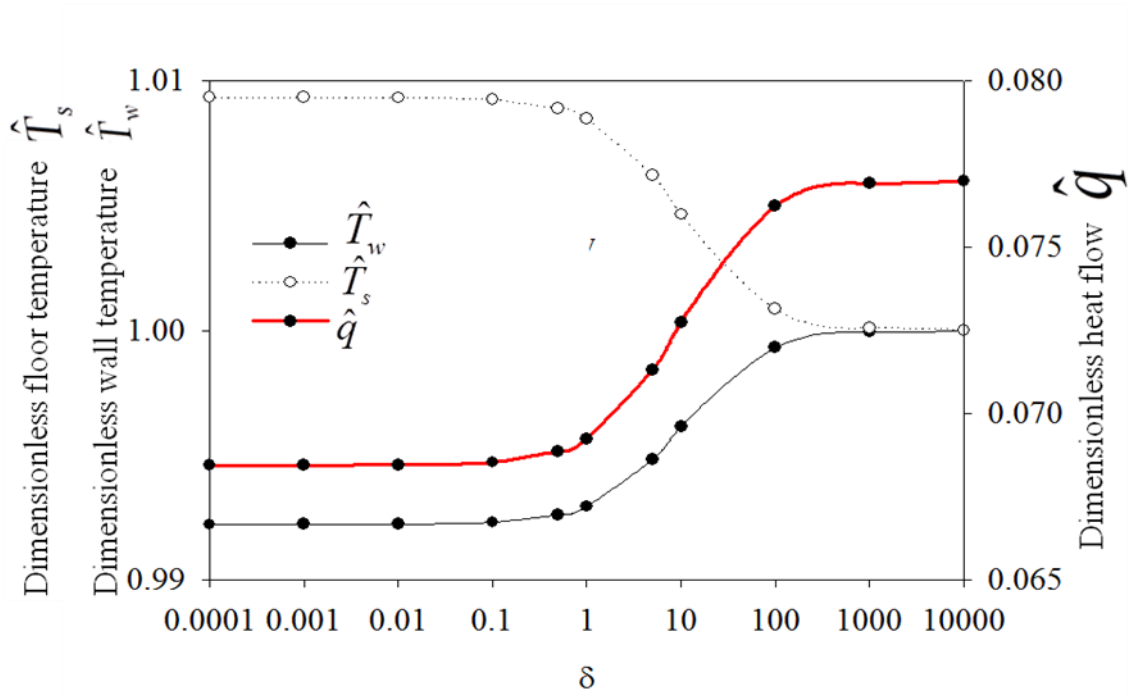
To appear in: *ENB*

Received date: 10-5-2016
Revised date: 11-8-2016
Accepted date: 10-10-2016

Please cite this article as: Joe R.Zhao, Yizhou Sang, Jiaojiao Sun, Bin Chen, Xueyan Zhang, R.J.Kerekes, Approximate Equations to Estimate Heat Flow From Floors to Attain Desired Room Temperatures in a Simple House, Energy and Buildings <http://dx.doi.org/10.1016/j.enbuild.2016.10.015>

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.

Graphical Abstract



When δ is small (≤ 1), radiation dominates and convection has little effect. Above this value (≥ 1), convection plays an increasing role. At the extreme limit of very large δ , convection reaches a level such that dimensionless floor temperature \hat{T}_s and dimensionless wall temperature \hat{T}_w converge to the room temperature ($\hat{T}_w = \hat{T}_s = 1$). Very high heat transfer \hat{q} from the floor is required for this limiting case.

Download English Version:

<https://daneshyari.com/en/article/4919534>

Download Persian Version:

<https://daneshyari.com/article/4919534>

[Daneshyari.com](https://daneshyari.com)