



DOCTORAL DISSERTATION APPROVAL

Students must submit this form to their graduate program office. Program staff will ensure that the committee has been entered in SISC, verify that the signatures and initials are authentic, and send the form to the Faculty of Graduate and Postdoctoral Studies at graduate.thesis@ubc.ca.

Student: James Kevin Pierce Student number: 85090141
Given Name Family Name
in partial fulfillment of the requirements for the degree of: PHD in: Geography
Degree (PhD, DMA, EdD) Graduate Program Name
Date of Dissertation Defence: 2021/08/31
Date (yyyy/mm/dd)

Dissertation Title: The Stochastic Movements of Individual Streambed Grains

As research supervisor for the student named above, I certify by signing below that I have read this student's defended dissertation (title above), have approved changes required by the final examiners, and recommend the dissertation to the Faculty of Graduate and Postdoctoral Studies for acceptance.

REQUIRED: I verify and endorse the content of the Preface: MH _____ (Supervisor must initial)

REQUIRED: INITIAL ONE STATEMENT ONLY:

EITHER I verify that approval of a UBC Research Ethics Board or UBC Animal Care Committee was not required:

MH _____
Supervis Initials

OR I verify that approval of a UBC Research Ethics Board or the UBC Animal Care Committee was obtained:

Supervis.

Marwan Hassan

Marwan Hassan

2021/09/25

Name of Research Supervisor

Signature

Date (yyyy/mm/dd)

The undersigned certify that they recommend this dissertation to the Faculty of Grad. and Postdoc. Studies for acceptance:

Roger D. Beckie

Roger Beckie

2021/08/31

Name of University Examiner

Signature

Date (yyyy/mm/dd)

Michael A. Church

Michael Church

2021/09/07

Name of University Examiner

Signature

Date (yyyy/mm/dd)

Brett Eaton

Brett Eaton

2021/08/31

Name of Supervisory Committee Member

Signature

Date (yyyy/mm/dd)

Rui M L Ferreira

Rui Miguel Long Ferreira

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Name of Supervisory Committee Member

Signature

Date (yyyy/mm/dd)

Peter Ashmore

Name of External Examiner

Signature

Date (yyyy/mm/dd)

Note: A minimum of three signatures on this form is required for approval of the dissertation; the research supervisor's signature, a University examiner's signature, plus the signature of at least one more member of the examining committee.

Faculty of Graduate Studies use only:

Date thesis approved in cIRcle

Receipt email sent

Thesis Clerk