



Student Name Hao Yue Student ID \*\*\*\*\*

Master's Degree in Civil Engineering

Thesis Title:

Laboratory application of sampling approaches to inverse scattering

Have you performed research involving human subjects which requires approval from the Institutional Review Board (IRB)?  Yes  No

IRB Protocol Number \_\_\_\_\_

Have you used live animals, animal tissue, or observational animal work which requires approval from the Institutional Animal Care and Use Committee (IACUC)?  Yes  No

IACUC Protocol Number \_\_\_\_\_

Attach the final copy of thesis/dissertation for committee review. While formatting changes may be requested by the Graduate School, the content of the attached document should be final.



**Approvals:**

Committee Chair Name Fatemeh Pourahmadian

Signature  Date Signed 12/2/2020

Committee Member Name Jeong-Hoon Song

Signature  Date Signed 12/1/2020

The final copy of this thesis has been examined by the signatories, and we find that both the content and the form meet acceptable presentation standards of scholarly work in the above-mentioned discipline.

**THE GRADUATE SCHOOL  
UNIVERSITY OF COLORADO at BOULDER**

MASTER'S EXAMINATION OR  
PROJECT REPORT

Student's Name Yue Hao Student Number # 102092635  
Last First MI

Date of Examination 11/18/2020

( Check One )  Thesis defense  Comprehensive/Final Exam  Project Defense  Capstone  Creative Thesis Project

Degree/Major Master/Civil Engineering

Committee Members

Signatures

| Name                 | Dept.              | Satisfactory   | Unsatisfactory |
|----------------------|--------------------|--|----------------|
| Fatemeh Pourahmadian | Civil Engineering  | DocuSigned by:<br><i>Fatemeh Pourahmadian</i><br>21B46170D0064D2...<br>DocuSigned by:<br><i>Jeong-Hoon Song</i><br>AB4885DA59AF417...<br>DocuSigned by:<br><i>Dr. Shijie Zhong</i><br>C959C08D279D4AD... |                |
| Jeong-Hoon Song      | Civil Engineering  |  |                |
| Shijie Zhong         | Physics Department |  |                |
|                      | Chair              |  |                |

Departmental Approval of Committee \_\_\_\_\_ Date \_\_\_\_\_  
 (If Appropriate)

Graduate School Approval of Committee Joyce Cheney Digitally signed by Joyce Cheney Date: 2020.11.16 14:50:59 -07'00' Date \_\_\_\_\_

Overall Examination was:  Satisfactory or  Unsatisfactory  
(Check one)

**Final Exam:**

The committee for the comprehensive/final exam, thesis or project defense **must be approved by the Graduate School at least two weeks before the exam is held, by submitting this form.** The final examining committee is comprised of a minimum of three faculty members. All members of the committee must hold a graduate faculty appointment. The Chair must have a regular appointment; the other committee members must be either regular or special members. Student must be registered "for credit" for a minimum of 1 hour on the Boulder campus, during the semester of the final exam/thesis or project defense.