研究生学位论文开题报告

Graduate Thesis/Dissertation Proposal

学号 **Student ID**　　　　0210719100xx

姓名 **Name**　　　　　　　张三

学生类别 **Degree Program**　学术型博士生 Academic Doctoral Student

学习形式 **Study Mode**　　　全日制 Full-time

导师 **Supervisor(s)**　　　　李四

论文题目 **Thesis Title**　　　理科楼 6 号楼工位安排与管理

学院 **School**　　　　　　　数学科学学院

专业 **Major**　　　　　　　计算数学

开题日期 **Date**　　　　　　2023.9.28

开题地点 **Venue**　　　　　上海交通大学数学科学学院

填 报 说 明

Instruction

1. 校本部研究生的开题报告应通过[数字交大](数字交大)在线提交申请，填写本表并上传系统。特殊情况下经研究生院事先同意，可不上传系统，并使用《上海交通大学研究生论文开题评审表》完成评审。

   The application for thesis/dissertation proposal should be submitted online through My SJTU. The student shall fill this form and upload it in the system. Under special circumstance, this form does not need to be uploaded and the review can be proceeded with the review form with prior consent from the graduate school.

2. 开题报告为 A4 大小，于左侧装订成册。各栏空格不够时，请自行加页。考核前提前一周送交导师、评审专家审阅。

   This form should be printed with A4 papers and bound together on the left. If the space left is not enough, please feel free to add extra pages. The print version shall be sent to the supervisor, and the review committee members for review at least one week before the oral presentation.

3. 博士生导师可以根据博士生学位论文选题情况自行确定是否进行开题查新，博士学位论文开题查新报告应由查新工作站提供。

   The supervisor should decide, based on the proposed topics, whether a novelty assessment report is needed or not, which should be conducted by an authorized novelty assessment department.

4. 开题报告通过后，定稿版开题报告由研究生、导师各存档一份，无需上传系统。

   Upon passing the proposal, the final version of this report shall be archived by the graduate student and his/her supervisors for future reference.

5. 同等学力研究生开题答辩采用会议形式，硕士邀请至少 3 名相关学科/专业领域具有硕士研究生指导资格的专家。博士邀请 5 名相关学科/专业领域具有博士研

究生指导资格的专家。

The capstone presentation adopts a conference format, and at least three experts with master's degree guidance qualifications in relevant disciplines and professional fields are invited for the master's degree. And five experts with doctoral guidance qualifications in relevant disciplines/professional fields are invited for doctoral guidance.

论文题目 Proposed Title	理科楼 6 号楼工位安排与管理
研究课题来源 Source of Research Project	请在合适选项前画 ✓ Please select proper options by "✓" ☐ 国家自然科学基金课题 NSFC Research Grants ☐ 国家社会科学基金 National Social Science Fund of China ☐ 国家重大科研专项 National Key Research Projects ☐ 其它纵向科研课题 Other Governmental Research Grants ☐ 企业横向课题 R&D Projects from Industry ☐ 自拟课题 Self-proposed Project ☐ 其他 Other _____

1 请综述课题国内外研究进展、现状、挑战与意义，可分节描述。博士生不少于 10,000 汉字，硕士生不少于 5,000 汉字。请在文中标注参考文献 Please review the frontier, current status, challenges and significance of the research topic. The citations should be marked in the context and listed in order at the end of this section. No less than 8,000 words for doctoral students and 4,000 words for master students if written in English.

1.1 序言 Introduction

此处序言
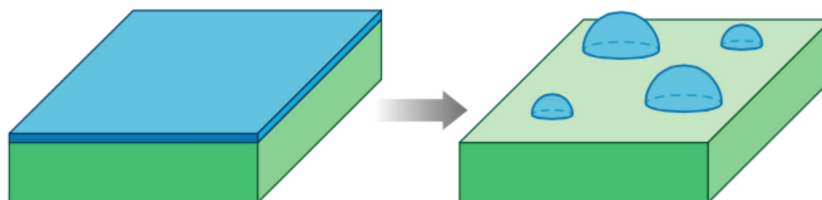

图 1: 固体脱湿现象示意图，其中基底 (绿色) 与薄膜 (蓝色) 均处于固态. 该图取自 [2].

1.2 物理背景与界面/表面动力学 Physics background and interface/surface dynamics

1.2.1 界面能量与表面扩散 Interfacial energy and surface diffusion
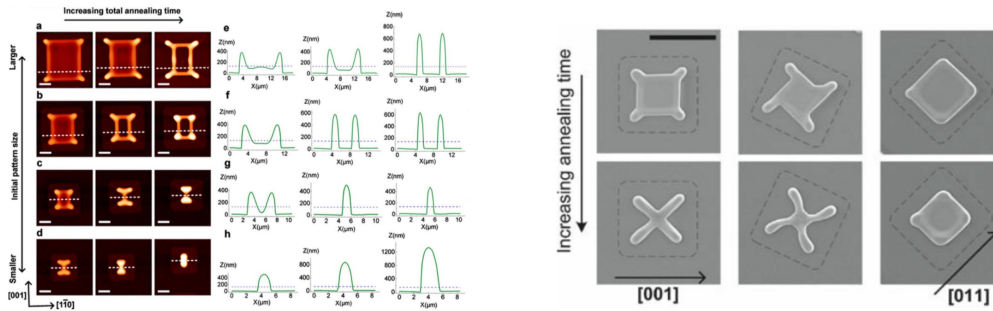
定理 1.1. *type theorem here.*

$$W = \frac{1}{c_F} \int_\Omega \varepsilon A(\nabla\phi) + \varepsilon^{-1} F(\phi)\, \mathrm{d}x + \sigma \int_{\Gamma_w} G(\phi)\, \mathrm{d}s \tag{1.1}$$

引理 1.2. *type lemma here.*

$$\frac{\partial \phi}{\partial t} = \nabla \cdot (M \nabla \mu) \tag{1.2a}$$

$$\mu = F'(\phi) - \varepsilon^2 \Delta \phi \tag{1.2b}$$

评论. remark.

(a) 不同尺寸的单晶薄膜的脱湿现象.　　　**(b)** 三种不同平面定向的正方形的脱湿现象.

图 2: 图像均由 Ye 与 Thompson 复现制作 [1].

2　课题研究目标、主要研究内容和拟解决的关键问题　Research objectives, main contents and key issues to be solved.

t.b.a

3　拟采取的研究方法、研究方案及其可行性分析　Research methods and research scheme to be adopted and feasibility analysis.

t.b.a

4　课题的创新点　Novelties of the proposed topic.

t.b.a

5　计划进度、预期成果　Research schedule, and expected outcomes.

t.b.a

6　与本课题有关的工作积累、已有的研究工作成绩　Prior experience and accomplished achievements related to the proposed topic.

t.b.a

本人承诺：开题报告中的内容真实无误，若有不实，愿承担相应的责任和后果　I hereby declare and confirm that the details provided in this Form are valid and accurate. If anything untruthful found, I will bear the corresponding liabilities and consequences.

学生签字/Signature of Student:　　　　　　　　**日期/Date:**　2023 年 9 月 28 日

参考文献

[1]   Weizhu Bao and Yongyong Cai. "Mathematical theory and numerical methods for Bose-Einstein condensation". In: *arXiv preprint arXiv:1212.5341* (2012).

[2]   Carl V Thompson. "Solid-state dewetting of thin films". In: *Annual Review of Materials Research* 42 (2012), pp. 399–434.

参考文献