

GGC5039 / ESS419

## Academic Communication

### Section 5-3: Writing proposals and applications (Grant Proposal)

Instructor: Dikun Yang

Term: Fall 2020-2021



# Outline

- Section 1: **Introduction** (2 hr)
- Section 2: **International communications** (2 hr)
- Section 3: **Writing and publishing** (8 hr)
- Section 4: **Presentations at conferences** (6 hr)
- Section 5: **Writing proposals and applications** (6 hr)
- Section 6: **Interviews** (4 hr)
- Section 7: **New media** (2 hr)
- Section 8: **Integrated practice** (2 hr)

# Research Grant vs. Scholarship



- Money
- Students
- Investment in persons
- Important for promotion



- Money
- Independent researchers
- Investment in ideas
- Important for promotion/survival

# Persuasive Writing

- Scholarship/fellowship applications (past or future)
  - I have done or will do amazing things that you care
  - I am the person you want to reward or invest in
- Job or graduate school applications (past < future)
  - I qualify
  - I can and will do the work well
- **Grant proposals (past < future)**
  - I have an idea worth investigating
  - I have good track record
  - You should invest

# Where to Find Grant Opportunities

- Government agencies
  - Natural Science Foundation (national, provincial, municipal)
  - Ministry of Science and Technology, Education, etc.
- Universities, institutions, laboratories
  - 重点实验室开放基金、本科生/研究生学术探索基金
- Professional societies/associations
- Non-profit and non-government organizations
- Industry and private sectors

# Information in a Grant Proposal

- Research contents
  - What, why, who, how (much)
- You and your team
  - Education and work experience
  - Previous publications
- Preliminary and feasibility studies
  - Project not purely imaginary
- Expected results and impacts
  - Capture the reviewer's imagination



# Preparation Before Writing Proposals

- Make smart decisions
  - A suitable grant: stage of career development
  - A good topic: continuity of your research area; explore in new areas
  - A good timing: how old are you?
- Think about research ideas year-round
- Literature review: know the state-of-art
- Set a time frame: time goes fast!
- Preliminary experiments/results
- Consult with senior researchers

# NSFC基于四类科学问题属性的分类申请

- **A 鼓励探索，突出原创：**是指科学问题源于科研人员的**灵感**和**新思想**，且具有鲜明的**首创性**特征，旨在通过**自由探索**产出**从无到有**的原创性成果。
- **B 聚焦前沿，独辟蹊径：**是指科学问题源于**世界科技前沿**的**热点、难点**和**新兴领域**，且具有鲜明的**引领性**或**开创性**特征，旨在通过**独辟蹊径**取得**开拓性**成果，**引领或拓展科学前沿**。
- **C 需求牵引，突破瓶颈：**是指科学问题源于**国家重大需求**和**经济主战场**，且具有鲜明的**需求导向**、**问题导向**和**目标导向**特征，旨在通过解决**技术瓶颈**背后的**核心科学问题**，促使**基础研究**成果走向应用。
- **D 共性导向，交叉融通：**是指科学问题源于**多学科领域交叉**的**共性难题**，具有鲜明的**学科交叉**特征，旨在通过交叉研究产出**重大科学突破**，促进**分科知识**融通发展为**知识体系**。



# Anatomy of Grant Applications (NSFC)

- Fact sheets (forms)
- Budget
- Main body
- Resumes
- Signatures

## 报告正文

### (一) 立项依据与研究内容:

1. 项目的立项依据 (包括参考文献)
2. 项目的研究内容、研究目标, 以及拟解决的关键科学问题
3. 拟采取的研究方案及可行性分析
4. 本项目的特色与创新之处
5. 年度研究计划及预期研究结果

### (二) 研究基础与工作条件

1. 研究基础
2. 工作条件
3. 正在承担的与本项目相关的科研项目情况
4. 完成国家自然科学基金项目情况

### (三) 其他需要说明的问题

# Anatomy of Grant Applications (NSFC)

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NFSC申请书样例

		<table border="1"><tr><td>申请代码</td><td>D0404</td></tr><tr><td>接收部门</td><td></td></tr><tr><td>收件日期</td><td></td></tr><tr><td>接收编号</td><td>4197040457</td></tr></table>		申请代码	D0404	接收部门		收件日期		接收编号	4197040457
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<b>国家自然科学基金</b> <b>申 请 书</b> (2019版)											
资助类别:	面上项目										
亚类说明:											
附注说明:											
项目名称:	页岩气压裂液长电极电磁法高分辨率成像监测方法研究										
申 请 人:	杨迪琨	电 话:	0755-88018695								
依托单位:	南方科技大学										
通讯地址:	广东省深圳市南山区学苑大道1088号										
邮政编码:	518055	单位电话:	0755-88010323								
电子邮箱:	yangdk@sustech.edu.cn										
申报日期:	2019年03月08日										
国家自然科学基金委员会											


# Tips

- **Visually pleasing:** use the template, consistent spacings, figures/tables properly resized, cautious about colorful fonts
- **Language:** formal writing, no grammatical errors and misspelling, clear and understandable
- **Structure:** be logical, be concise, keep the readers on track
- **Presentation style:** proper use of bullet points and boldface, convey complex concepts/workflows in figures
- **References:** a potential “battle ground”
- **Iterative writing:** Get a draft then revise and polish

# Evaluation of Proposals

- Submit in print (with signatures and stamps) or online
- Pre-screening for incorrect format and "fatal" errors
- Selection of reviewers: category code and keywords
- Peer review (usually single blind): email or online forms
- Second round of review: defense or committee meeting
- Notification and confirmation

# Looking forward to seeing your first proposal

A man in a dark blue shirt and jeans is kneeling on one knee, holding the hands of a woman in a white lace dress. They are standing on a grassy field with small yellow flowers. In the background, there are mossy green cliffs and a waterfall. A speech bubble points from the man to the text "Will you fund me?".

Will you fund me?