

海外博后经验分享会

国外博士后申请过程的经验分享

分享人：付博士

2026年06月18日

CONTENTS

0 毕业时间线 & 我的时间线参考

1 前期材料准备 (cv, ppt)

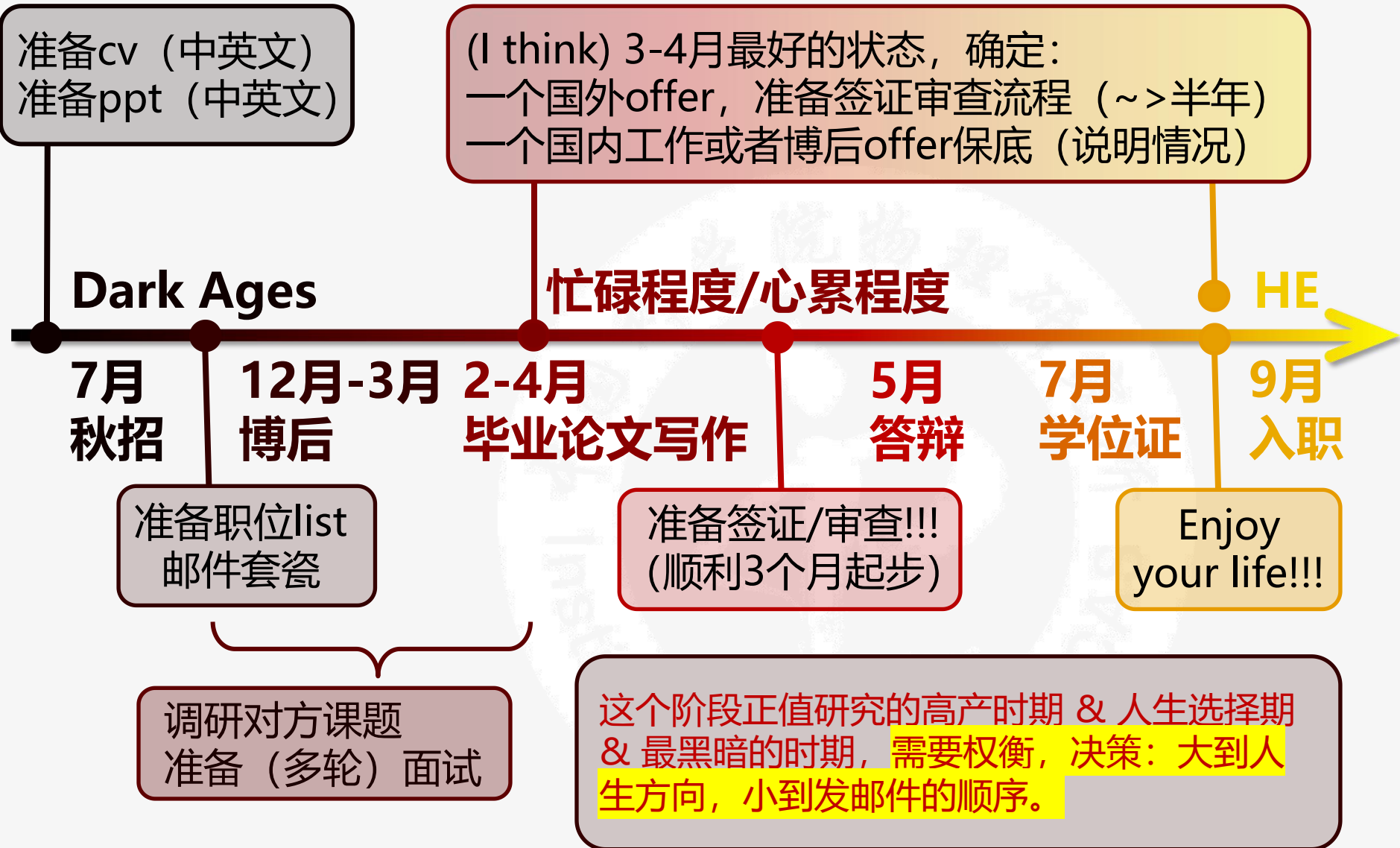
2 博后材料准备 (招聘信息, 职位list, 邮件套瓷)

3 面试

4 申请签证

5 国外生活

0 毕业时间线



20250209 发申请邮件 (20241027-20250308 发了三轮邮件, 每一轮的科研进展是不一样的, 新想法, 新结果, 文章接收等等)

20250219 第一次面试, 面试结束后向博士老板询问情况 (推荐信)

20250227 老板同意夏季毕业!

20280309 第二次面试+做题.....心态崩.....

20250312 决定给我offer!

20250313 接受offer!

20250314 提交安全审查ZRR

20250515 我的博士毕业论文答辩

20250604 安全审查通过, 历时82天(12周少两天!几乎三个月!)

20250702 拿到我的学位证电子档

20250718 收到接待协议!

20250901 博后入职

1 前期材料准备：个人简历 (CV)

让对方短时间内全方位的了解你，从而获得面试机会。

中 (工作) 英文 (博后) 一起准备，基本内容一样，但有所侧重。

- 个人信息：姓名，地址，电话号码，邮箱...
- 教育背景：博士/本科学校，专业，GPA，主修课程...
- 个人技能：实验技能，软件使用，语言能力...
- **研究经历：3个左右，包含主要工作和结果总结**
- 会议报告经历：会议名称，城市，国家，参会时间...
- 获得奖项：奖项的名称，获得的时间年份，颁发单位...
- **论文发表情况：所有的文章（可包含未发表的），按照作者位次，文章水平，等顺序依次排列，自己名字加粗**

简历大集

- 中科院李... pdf 494.7KB
- 李... 的简历.pdf 559.6KB
- 个人简历-表格版.pdf 244.4KB
- 杜... 简历模板.docx 39.0KB
- 中国科学院物理研究所-博士-... pdf 253.0K
- 简历模板.pdf 252.4KB
- _中国科学院物理研究所...)906.pd
- 王... 简历.pdf 197.7KB
- Press 'space' for AI or '/' for commands
- Xu X... cv V14.pdf 354.7KB
- CV_... nYin.pdf 137.9KB
- Liu.pdf 1550.5KB
- Du_SSTravel2024 -... Du (Frank
- cv_... :hen.pdf 93.1KB

1 前期材料准备：个人简历 (CV) 中文

本科毕业申请物理所的简历

物理所博士毕业的简历



付

个人信息

姓名：付
出生年月：
政治面貌：
籍贯：
联系方式：
邮箱：1
兴趣爱好：书法、摄影、阅读

教育背景

学校：湖南师范大学
学院：物理与电子科学学院
专业：应用物理学（光电方向）
绩点：3.96/5
专业成绩：89.13分
专业成绩排名：3/48
综合测评排名：1/48

证书技能

大学英语四级：505分
大学英语六级：451分
普通话考试等级：二甲
国家计算机二级证书（C语言）
熟悉 office 办公软件
熟悉 matlab, python 编程软件
熟悉 origin, photoshop 绘图软件

科研经历

- 2017年10月至今：通过学院拔尖人才培养计划，在湖南师范大学低维量子结构调控教育部重点实验室唐东升教授课题组实验学习，研究方向为金属氧化物一维纳米结构的阻变机制与忆阻性能调控。
- 2018年3月至今：作为组长主持国家级大学生创新实验项目《基于WO₃纳米线负光电导效应的光电逻辑门器件构筑》。
- 参与发表论文：*Positive and negative photoconductivity conversion induced by H₂O molecule adsorption in WO₃ nanowire* 于二区期刊 *Nanoscale Research Letters* (二作)。
- 项目“基于多孔花球状 PdCl₂/CeO₂ 光催化降解 NO 的研究”在 2019 年湖南省第十三届挑战杯中获得三等奖。

获奖情况

- 奖学金：2016-2017、2017-2018 年度国家励志奖学金
2016-2017、2017-2018 年度校综合一等奖学金
2018 年“三书礼”创新实践奖学金
竞赛：2019 年湖南省第十三届“挑战杯”竞赛三等奖
2018 年湖南师范大学第一届数学竞赛非数学类二等奖
2017 年度湖南师范大学“创 e 杯”竞赛三等奖
荣誉：2016-2017、2017-2018 年度校“三好学生”称号
2017-2018 年度五四院十佳学习尖子
2018-2019 年度五四院十佳团支部书记

自我评价

大一以来，我认真学习专业知识，基础牢固，善于思考，在课堂上积极与老师沟通交流。同时参加各种课外学术活动以及竞赛活动，收获颇丰。

我兴趣广泛，组织能力强。曾任天文协会理事兼，现任班级团支部书记，在任期间都给支部带来了诸多荣誉。在学习生活与学生工作中，始终以一名优秀共产党员的标准严格要求自己，自律自信、自立自强。

大二上学期主动进入实验室学习，熟悉科研。掌握水热法、化学气相沉积法以及光刻加工技术，熟悉扫描电镜 (SEM)、能谱仪 (EDS)、X 射线衍射仪 (XRD) 等仪器的操作，同时学习了 LaTeX、origin、matlab 等软件。在实验室期间，阅读了许多科研文献，逐渐发掘自己感兴趣的方面，培养了科研分析与思辨能力。



付

意向：光学技术开发工程师

手机：
邮箱：

基本技能

Python Matlab
C4D RedShift
Origin SolidWorks
AI Photoshop

荣誉与奖学金

研究生期间：

- 2023 所长奖学金优秀奖
 - 2023 Light 会议最佳 Poster 奖
 - 2022 优秀研究生学业奖学金
 - 2021 中国科学院大学一等学业奖学金
- 本科期间：
2020 湖南首优秀毕业生
2020 校优秀毕业生
国家励志奖学金 (3次)
校一等奖学金与三好学生称号 (3次)
2019 校十佳团支部书记
2018 校优秀学生干部

资格证书

普通话二级
英语六级
计算机二级
教师资格证 (高中)

自我评价

本人品行端正，工作认真，谦虚谨慎，责任心强。拥有较强的创新思维和团队合作精神。性格活泼外向，自我调节能力、学习能力、团队协作组织能力。

教育背景

湖南师范大学 双一流 (排名：1/50, 导师：唐东升教授)
物理与电子科学学院 | 应用物理学 | 本科 2016-09 至 2020-06
中国科学院物理研究所 双一流 (GPA: 3.85/4, 导师：顾长志研究员)
纳米物理与器件实验室 | 凝聚态物理 | 硕博连读 2020-09 至 2025-06

个人专业技能

- 具有丰富的数值仿真、微纳器件设计经验。熟练使用 FDTD、CST、COMSOL、RCWA 等软件及其与 Matlab 的联动。可按需进行微纳结构设计及电磁/光学仿真。如：振幅相位调控 (灰度成像、全息成像、超构透镜)、偏振调控 (偏振转换)、频率编码 (结构色、光学传感)、能带工程 (能带调控、强耦合) 等。熟练掌握耦合模式理论，分析非厄米体系内奇异点 (EP) 与连续域中的束缚态的形成原理与应用。熟练使用深度学习 Tensorflow 框架与传统优化算法 (遗传、粒子群算法等) 优化并加速微纳结构设计。
- 具有丰富的微纳加工、半导体工艺、样品表征工作经验。精通各类微纳加工/半导体加工工艺，包括：光刻 (电子束光刻、激光直写、紫外光刻等)、薄膜沉积 (电子束蒸发、化学气相沉积、磁控溅射等)、刻蚀 (反应离子束刻蚀、电感耦合等离子体刻蚀、聚焦离子束刻蚀等)、纳米压印。熟悉各类表征手段，包括：扫描电子显微镜、拉曼光谱、太赫兹时域测试系统、椭偏仪、台阶仪、白光干涉仪、四探针电学测试系统等。
- 具有复杂的光学系统设计及搭建的经验。设计并搭建了基于衍射光学测量系统，多光参量 (相位、振幅、偏振、频率) 通道的光学测量系统，白光/灰光的反射/透射角分辨光谱测量系统。能够按需进行光路搭建及相关光学测试，解决实际的光学研发问题。

科研项目经历

- 国家自然科学基金项目 基于新型低维功能材料的原理性器件构建 技术骨干
国家重点研发项目 拓扑灰色体系研究-5 技术骨干
- 设计奇异点 (EP) 的多光学参量调控超表面：提出了一种基于深度学习辅助的 EP 拓补设计方法，并利用 EP 点周围拓补保护的参数分布，实现了可用于彩色全息息的波分复用超表面和一种可以实现图像解码的振幅-相位复用超表面器件，为实现高性能和低串扰的多光学参量调控提供了额外自由度。
- 设计太赫兹共振反 PT 对称 EP 超表面生物传感器：利用耦合模式理论提出在超表面体系中反 PT 对称的共振 EP 的构建方法，实现了灵敏高达 2000 GHz/(RIU*um) 的生物传感超表面器件。
- 设计高阶 EP 超表面生物传感器：提出在太赫兹超表面体系中构建高阶 EP 的方法，两个失谐模式的干涉相消作用及其与第三个谐振子的特定耦合关系实现了从二阶 EP 到 EP3 的直接转变。所提出的二阶 EP 传感器具有高折射率灵敏度，易于与功能材料集成，为先进的光通信和传感系统铺平了道路。

国家级大学生创新实验项目 基于 WO₃ 纳米线负光电导效应的光电逻辑门器件构筑 主持人
在 Au/H-WO₃/NW/Au 器件中，相对湿度、光强和偏置电压可以调节 H⁺ 离子的浓度和分布，从而实现正、负光电导率的转换，为调节 WO₃ 的光学和电阻开关特性提供了新的方法。2019 年该项目以优秀项目结题，并参与到 2020 年国家级大学生创新性项目年会。

论文发表

- Peng Fu, Shuo Du, Wenze Lan, Changzhi Gu, et al. Deep learning enabled topological design of exceptional points for multi-optical-parameter control. *Communications Physics*, 2023, 6(1): 254. (JCR Q1, IF=5.4)
- 付朋, 董文涛, 郭阳, 顾长志. 深度学习赋能微纳光子学材料设计研究进展. *真空科学与技术*, 43, 4 (2023)
- Peng Fu, Pai Peng, Wenze Lan, Changzhi Gu, et al. Achieving Higher-order Exceptional Points in Terahertz Metasurface via Deep Learning (To be submitted)
- Peng Fu, Wenze Lan, Pai Peng, Changzhi Gu, et al. Resonant anti-symmetry exceptional point sensing in terahertz metasurfaces. (Manuscript in preparation)
- Wenze Lan, Peng Fu, Chang-Yin Ji, Changzhi Gu, et al. Visualization of photonic band structures via far-field measurements in SiNx photonic crystal slabs. *Applied Physics Letters*, 122, 151102 (2023) (JCR Q2, IF=3.5)
- Changyin Ji, Wenze Lan, Peng Fu, Changzhi Gu, et al. Probing Phase Transition of Band Topology via Radiation Topology. *Photonics Research*, 12, 1150-1157 (2024) (JCR Q1, IF=6.6)
- Yahui Liu, Peng Fu, Yanlin Yin, et al. Positive and negative photoconductivity conversion induced by H₂O molecule adsorption in WO₃ nanowire. *Nanoscale Research Letters*, 14, 1-7 (2019). (JCR Q1, IF=5.5)
- Zhou Cao, Yanlin Yin, Peng Fu, et al. TiO₂ nanosheet arrays with layered SnS₂ and CoOx nanoparticles for efficient photoelectrochemical water splitting. *Nanoscale Research Letters*, 14, 342 (2019). (JCR Q1, IF=5.5)

可以清晰的看到博士这五年的成长/收获~ (something interesting!!)

Peng Fu

PhD candidate, Condensed Matter Physics, Applied Physics,

| pengfu@iphy.ac.cn

Nanophysics and Device Laboratory, Institute of Physics, Chinese Academy of Sciences

Education

Chinese Academy of Sciences (Institute of Physics), Beijing, China Sep. 2020 - June. 2025 (expected)
Ph.D. in Condensed Matter Physics *Advisor:* Changzhi Gu GPA: 3.85/4.0

Hunan Normal University (College of Physics and Electronics), Changsha, China Sep. 2016 - Dec. 2020
B.S. in Applied Physics *Advisor:* Dongshen Tang Ranking: 1/50

Research Interests

- Nanophotonics (Metasurfaces, Photonics Crystal)
- 3D Folding Fabrication Device
- Multifunctional Devices
- Inverse Design
- All-optical on chip Diffractive Neural Networks
- Strong Coupling and Lasing

Major Courses

- Advanced Quantum Mechanics
- Physical Optics
- Laser Principle
- Experimental Methods in Solid State Physics
- Theory and Application of Electromagnetic Field in Optics
- Group Theory in Physics
- Applied Optics
- Micro & Nano Optics
- Optical Physics in Condensed Matter
- Advanced Semiconductor Physics
- Theory of the Solid State
- Information Optics
- Linear Algebra

Research Experiences

- Deep learning enabled topological design of exceptional points for multi-optical-parameter control**
 - Brief Abstract: We develop multi-optical-parameter metasurfaces by leveraging exceptional points (EPs) for polarization decoupling and amplitude-wavelength modulation. Utilizing deep learning, we observe topological charge conservation and introduce amplitude-phase and wavelength division multiplexing devices.
 - Our approach offers a rapid and precise method for EP topology discovery, enabling high-performance, multi-optical parametric manipulation with reduced crosstalk, advancing applications in imaging, encryption, and information storage.
- Achieving Higher-order Exceptional Points in Terahertz Metasurface**
 - Brief Abstract: Demonstrated the realization of a third-order exceptional point (EP3) in terahertz metasurfaces by tuning the near-field interaction between three gold split-ring resonators. Utilized a global optimization algorithm and neural networks to optimize EP3 conditions in a high-dimensional parameter space.
 - This novel design enables ultra-sensitive biosensing and paves the way for advanced optical communication and sensing systems with enhanced sensitivity and integration capabilities.
- Inverse design ultra-broadband metasurface for UV-MIR compatible camouflage**
 - Brief Abstract: Leveraging reverse design with genetic algorithm, we created a groundbreaking four-layer metasurface absorber (Cr, 40nm GST, 50nm SiO₂, 130nm GST) that achieves an impressive 92.17% average absorption across the 200-2500nm spectrum for two incident angles of 0° and 45° ($F = \sum_{\theta} \sum_{\lambda} A_{TE}^{\theta}(\lambda) + A_{TM}^{\theta}(\lambda)$). Even at steep incident angles up to 70° with unpolarized light, it maintains over 84% absorption.
 - This highly efficient, wide-angle absorber offers transformative potential for next-generation optoelectronic devices, combining performance and scalability.

Research Skills

- Rich experience in numerical simulation, micro and nano device design.** Proficient in using FDTD, CST, COMSOL, RCWA and other software and its linkage with python/Matlab, capable of micro-nanostructural design and electromagnetic/optical simulation on demand, such as: **Amplitude and phase regulation** (perfect absorption, chirality, grayscale, holographic imaging), **polarization regulation, band engineering** (band regulation, strong coupling), etc. Proficient in **coupled mode theory**, analyze the formation principle and application of bound states in non-Hermitic systems and continuous domains. Skilled use of **deep learning and traditional optimization algorithms** (genetic, adjoint, etc.) to design and optimize unconventional, high-performance micro/nano structures.

- Rich experience in micro and nano processing, semiconductor process and sample characterization.** Proficient in various micro and nano machining/semiconductor processing processes, including: **lithography** (electron beam lithography, laser direct writing, UV lithography, etc.), **thin film deposition** (electron beam evaporation, chemical vapor deposition, magnetron sputtering, etc.), **etching** (reactive ion beam etching, inductively coupled plasma etching, focused ion beam etching, etc.), **nanoinprint**. Familiar with various **characterization and analysis methods**, including scanning electron microscope, Raman spectroscopy, terahertz time domain testing system, ellipsometer, step meter, white light interferometer, four-probe electrical testing system, etc.
- Experience in complex optical system design and construction.** Designed and built based on diffraction optical measurement system, multi-optical parameter (phase, amplitude, polarization, frequency) channel optical measurement system, white light/fluorescence reflection/transmission angular resolution spectrum measurement system. Be able to build optical paths and related optical tests as required to solve practical optical research and development problems.
- Software:** Proficient in Python and MATLAB programming software. Proficient in using numerical simulation software FDTD, COMSOL, CST and RCWA design and modeling software C4D with RedShift, 3ds Max and SolidWorks, and image editing software Photoshop and Adobe Illustrator. And proficient in using analysis and plotting software such as Origin.

Journal Publications

- Peng Fu, Shao Du, Wenze Lan, Changzhi Gu, et al.** Deep learning enabled topological design of exceptional points for multi-optical-parameter control. *Communications Physics*, 2023, 6(1): 254. (JCR Q1, IF=5.4)
- Peng Fu, Pai Peng, Wenze Lan, Changzhi Gu, et al.** Achieving Higher-Order Exceptional Points in a Terahertz Metasurface. *Nano Lett*, 2025
- Peng Fu, Xueyu Zhou, Changzhi Gu, et al.** Inverse Design of Broadband Metasurface-based Perfect Light Absorber (Manuscript in preparation).
- 付朋, 蓝文泽, 郭阳, 顾长志. 深度学习赋能微纳光子学材料设计研究进展. *真空科学与技术学报*, 43, 4 (2023)
- Yahui Liu, **Peng Fu**, Yanlin Yin, et al. Positive and negative photoconductivity conversion induced by H2O molecule adsorption in WO₃ nanowire. *Nanoscale Research Letters*, 2019, 14(1): 1-7. (JCR Q1, IF=5.5)
- Wenze Lan, **Peng Fu**, Chang-Yin Ji, Gang Wang, Yugui Yao, Changzhi Gu, and Baoli Liu. Visualization of photonic band structures via far-field measurements in SiNx photonic crystal slabs. *Applied Physics Letters*, 122, 151102 (2023) (JCR Q2, IF=3.5)
- Chang-Yin Ji*, Wenze Lan*, **Peng Fu**, Gang Wang, Changzhi Gu, Yeliang Wang, Jiafang Li, Yugui Yao and Baoli Liu. Probing Phase Transition of Band Topology via Radiation Topology. *Photonics Research*, 12, 1150-1157 (2024) (JCR Q1, IF=6.6)
- Zhou Cao, Yanlin Yin, **Peng Fu**, et al. TiO₂ nanosheet arrays with layered SnS₂ and CoOx nanoparticles for efficient photoelectrochemical water splitting[J]. *Nanoscale Research Letters*, 14, 342 (2019). (JCR Q1, IF=5.5)

Major Awards

- Three Good Students, Institute of Physics, CAS 2024
- Excellent Award, Director's Scholarship, Institute of Physics, CAS 2023
- First Prize, Graduate Academic Scholarship, CAS (Every year)
- Undergraduate Hunan Provincial Outstanding Graduate (3 times)
- National Inspirational Scholarship (3 times)
- University First-Class Scholarship and "Three Good Students" title (3 times)
- Top 10 Excellent Communist Youth League Branch Secretary (2017)
- Excellent Student Leader of the University (2018)

Conference Presentations

- 2022 Light Conference Week Aug 2022 Changchun **Best Poster Award** in person
- China Vacuum Society 2022 Annual Conference Guangzhou **Oral Presentation** in person

1 前期材料准备：面试ppt 中英文

公司面试PPT（中文），博后面试PPT（英文）和博士答辩PPT（中英文）大同小异，每一次准备的过程都是优化的过程：先准备中文的，面试公司，当练手 → 然后翻译，优化成英文的，面试博后 → 最后博士毕业答辩PPT。

当然，每一个PPT要展示的重点是不一样的，都需要有所调整。

基本信息 中国科学院物理研究所



个人兴趣爱好:
中国画, 油画, 书法, 徒步...

Major Awards



Basic Info. 中国科学院物理研究所



Personal Interests:
Traditional Chinese painting, Calligraphy, Photography, Hiking, Climbing.

Major Awards



1. 基本内容

- **个人基本信息**；
- **个人研究技能**（实验；模拟；理论等等）；
- **博士期间的研究经历**（三个最为主要的，包含动机和主要结果）；
- **未来的研究计划**（结合面试的课题组，也看对方导师的具体要求）

2. 提前把演讲稿写好，多练几遍，线上面试也可以看讲稿

3. 总时长半小时左右

4. 提前准备一些可能被问到的问题

对我来说，（自己联系老师，没有直系关系）

- **发表文章中经常关注的课题组：**找到相应的课题组主页，看是否有招聘信息，如果没有也不代表不招（也可以发邮件联系）



Javier Alzpurua
多诺西亚国际
物理中心



Andrea Blanco-Redondo
中佛罗里达大学



Jose Capmany
瓦伦西亚理工大学



陈志刚
南开大学



崔铁军
东南大学



戴康铨
浙江大学



Maria Farsari
希腊研究技术基金
会/电子结构与激光
研究所



Alexander Gaeta
哥伦比亚大学



Javier Garcia de Abajo
西班牙光子科学研
究所



Patrice Genevet
科罗拉多矿业大学



Harald Giessen
斯图加特大学



殷敏
上海理工大学

- **知名国际会议：**找到参会者清单

META META 2024 | The 14th Conference on Metamaterials, Photonic C...

Special Symposia

| META 2025 | 15th Conference on Meta...

META META 2024 | The 14th Conference on Metamaterials, Photonic C...

- **网页搜索：**搜索研究方向手段关键词+**OPEN POSITUIB**

OPEN POSITIONS

The group would be delighted to successfully support the application of a young researcher for a **junior (Chargé de Recherche) CNRS position** in January 2027.

The group received significant grants in 2023-2025 and is presently **offering several postdoc positions:**

- Within the **ERC Advanced project UNSEEN (2.2 M€)** we study **disordered optical metasurface coatings** that change the **appearance** (e.g., specular and diffuse colors, glossiness, transparency, iridescence) of macroscopic objects, see our initial **publication** for more insight. Talented PhD students are also welcome.

- **导师/师兄师姐推荐：**组内熟知的课题组，有过合作经历的课题组
- **会议套瓷：**会议中遇到合适方向的导师可以表明意向

基本框架一致，但不要让对方觉得是群发邮件。找对方的**细分研究领域**；寻找**相通点和共同话题**；寻找你真心觉得对方有意思的地方。其他的都是套话了...

0 Fan	10/21/2024 4:01 AM
1 yongming liu	10/27/2024 8:57 AM
1 yongming liu-wl	12/20/2024 5:53 PM
2 Patrice Genevet	10/27/2024 9:31 AM
3 capasso	10/27/2024 11:05 AM
4 Hsu	10/27/2024 3:02 PM
5 Alexandra	10/27/2024 3:25 PM
6 YangLan	10/28/2024 7:03 AM
7 Michal Lipson	11/30/2024 7:05 AM
8 Hsu	11/30/2024 9:31 AM
9 Evelyn hu	12/1/2024 3:24 PM
10 Laura Waller	12/1/2024 3:59 PM

➤ 广撒网

觉得合适的课题组都可以联系；

➤ 分批海投

避免同一时期出现太多面试 & 等待自己工作进一步publish

➤ 熟人推荐

一般希望比较大，流程也相对简单，留到最后。

11 Laura Na Liu	2/7/2025 5:18 PM
12 Harald Giessen	2/8/2025 10:34 AM
13 Bert Hecht	2/8/2025 1:15 PM
14 Maryna Leonidiv...	2/8/2025 1:19 PM
15 Andreas Tittl	2/8/2025 1:24 PM
16 Isabelle STAUDE	2/8/2025 2:08 PM
17 Thomas PERTSCH	2/8/2025 2:12 PM
18 Mikhail Belkin	2/8/2025 2:59 PM
19 Dr. Maria Chekho...	2/8/2025 3:08 PM
20 Dr. Falk Eilenberger	2/8/2025 3:41 PM
21 Dr. Jörg Martin	2/8/2025 3:47 PM
22 Dr. Philippe Lalan...	2/12/2025 5:15 PM

23 Dr. rer. nat. Thom...	3/8/2025 6:28 AM
24 Dr. Matthias Wutt...	3/8/2025 6:32 AM
25 Dr. Sven Höfling	3/8/2025 6:34 AM
26 Dr. Rachel Grange	3/8/2025 7:30 AM
27 Dr. Giacomo Scal...	3/8/2025 7:38 AM
28 Dr. Hatice Altug	3/8/2025 7:39 AM
29 Dr. Atac Imamoglu	3/8/2025 7:43 AM
30 Dr. Luc Thévenaz	3/8/2025 7:47 AM
31 Dr. Renaud Bache...	3/8/2025 7:56 AM
32 Dr. Guillaume Baf...	3/8/2025 7:57 AM
32 Dr. Marco Miniaci	3/8/2025 8:02 AM
33 Dr. Vincent Tournat	3/8/2025 8:07 AM
34 Andrea Alu	3/8/2025 8:16 AM
35 Nader Engheta	3/8/2025 8:23 AM
36 Olivier Martin	3/8/2025 8:29 AM

Dear Professor Patrice Genevet,

I hope this email finds you well. My name is Peng Fu, and I am currently a PhD candidate supervised by Professor Changzhi Gu at the Institute of Physics, Chinese Academy of Sciences. I specialize in the inverse design of **nanophotonics**, and I have long admired the innovative research your group is conducting in **nanophotonic structures, metasurfaces and metalenses, non-Hermitian systems, and exceptional point**. My early research has been inspired by your pioneering work [*Science* 373,1133-1137(2021)], and I would be honored to explore the possibility of joining your research group as a postdoctoral fellow.

During my PhD, I have been fortunate to work on the inverse design of **metasurfaces** and multifunctional photonic devices, focusing on exceptional points (EPs), broadband absorption, and the Jones matrix **metasurfaces**. For example, my recent work includes the demonstration of higher-order exceptional points (EP3) in terahertz **metasurfaces** and the development of an anti-PT symmetry resonant EP2 biosensor with high sensitivity. Additionally, I have integrated deep learning and optimization algorithms such as **genetic and adjoint methods** into **metasurface** design, which has been a rewarding challenge. I see many synergies between these research directions and the groundbreaking work in your group.

While I am still early in my career, I believe my background in areas such as:

- Micro & nano-fabrication, including advanced lithography and characterization techniques
- Deep learning and optimization algorithms for inverse design
- Multi-optical parameter control and EP topological properties

could offer useful contributions to the exciting projects in your lab. I would be grateful for the opportunity to discuss how my skills and research experience could complement your group's work, and to learn from the expertise and insight that your team brings to this field.

I have attached my CV for your reference and would be happy to provide any additional information. Thank you very much for considering my application. I sincerely hope to have the chance to contribute to and grow within your research group.

Application for Postdoctoral Position in **Nanophotonics**

philippe.lalanne@institutoptique.fr

Dear Prof. Philippe Lalanne,

My name is Peng Fu, and I am currently a PhD candidate supervised by Professor Changzhi Gu at the Institute of Physics, Chinese Academy of Sciences. I specialize in **inverse design of nanophotonics**, and I have long admired your group's pioneering research in **nanophotonics and numerical electromagnetic techniques**. I am writing to express my strong interest about the postdoc position in your group.

During my PhD, I have focused on the **inverse design of metasurfaces** and **multifunctional photonic devices**, including:

- 1) Deep-learning enabled topological design of exceptional point for multi-optical-control;
- 2) Higher-order exceptional points (EP3) in THz **metasurface**;
- 3) Ultrawide absorption **metasurface** using GST / metal alloy material (CuZrAl);
- 4) Broadband chiral **metasurface** and chiral cavity...

I am confident that my expertise in micro-/nano-fabrication and inverse design **metasurface** will align well with the ongoing projects in your lab. I have attached my CV for your reference and would be happy to provide any additional information.

Thank you very much for your time and considering my application. I am looking forward to hearing from you soon.

Application for Postdoctoral Position in Nanophotonics

pengfu@iphy.ac.cn

L Luc Thévenaz
发至 pengfu 详情

2025-03-09 01:00

百密有一疏

Dear Mrs P...

Thank you for your interest to join my no longer existing team, I sincerely much appreciate. Yes, my lab is no longer existing since I am retired for more than one year now... So you will understand that it does not make sense to further consider your application! In all cases it would have been difficult to hire you as a postdoc on my own funding, since you don't have a direct background in my exact field of research.

With my best wishes for your career,



Prof. Luc THEVENAZ
Emeritus

Application for Postdoctoral Position in Nanophotonics

P Philippe Lalanne
发至 pengfu 详情

面试

Dear candidate,
I just receive your application.
Let me examine it.
I will come back to you soon.
Best regards
Philippe

Philippe Lalanne

LY Lan Yang

Application for Postdoctoral Position in Nanoph...
Best wishes for your future career development.

2024/10/27

Univ Bordeaux
ance

现在没有funding，明年春天可能会有，
如果那时我还考虑她的话再联系她

PG

Patrice Genevet

2024/10/31

回复: [EXTERNAL] Application for Postdoctoral...
Thanks, I'm all set. Could you please share
the link with me? Looking forward to our discuss...

面试

PG

AW: Application for Postdoctoral Position in Optics

M Martin, Jörg
发至 pengfu 详情

thank you for your interest in our work and your application. Your expertise would fit very well, but unfortunately, we have no open position available currently.

Best regards,
Joerg Martin

PG

回复: [EXT...]
Dear Profes...
much for so...

Application for Postdoctoral Position in Optics

C Chekhova, Maria
发至 pengfu 详情

thank you for your interest but I have no open positions at the moment.

Best,
Prof. Dr. Maria Chekhova
Head of research group
Max-Planck Institute for the Science of Light

Application for Postdoctoral Position in Optics

pengfu@iphy.ac.cn

M Meretska, Maryna Leonidivna (INT)
发至 pengfu 详情

2025-02-10 20:21

Dear I...

I don' t have any open PostDoc positions. However, I am open to supporting you in
the application for the fellowship in my group. Would you be interested in doing
so?

Kind regards,
Maryna

OM

Olivier Martin

2025/5/26 >

RE: Application for Postdoctoral Position in Nan...

Thank you for your interest
and apologies for the very belated response. Yo...

MW

Matthias Wuttig

2025/3/9 >

回复: Application for Postdoctoral Position in N...

unfortunately I have no suitable
position at the moment. Best wishes, Matthias...

RG

Rachel Grange

2025/3/9 >

回复: Application for Postdoctoral Position in N...

On 08/03/2025 07:30, nenafu wrote: Dear
Prof. Rachel Grange, M...
i, and I...

结论：大家都有点缺钱，Funding很重要！ && 方向匹配很重要！！

Let us go for a zoom meeting.

1. In the first part, I would like that your present **your skills**: what exp setup did you design? which complicated computation did you performed? Fabrication?
2. In a second part, you may present **2 works** you are especially proud of and you participated significantly in.
3. In the last part, we will discuss **your ideas** of research topics on electromagnetic theory or metasurfaces or disorder.

What about 2pm (Paris time) next wednesday?

Best regards.

1. 根据对方提的具体形式，修改，优化PPT，优化讲稿。（要讲明白自己的工作）
2. 研究对方的研究方向，读对方的文章，想自己能给他带来什么 & 自己又能从他那学到什么？
3. 准备自己的问题（国外的老板很喜欢！）自己的想法，他的研究中自己不懂的地方等等，任何问题（生活上的，他们也喜欢闲聊）

小tips:

1. 英语口语练习（每晚和chatgpt口语对话，跟他聊你科研上做了什么）
2. zoom meeting 需要科学上网，确定网络流畅，提前试几遍
3. 区分：巴黎/美国/中国时间

面试结束，他觉得你合适，会找你要推荐人，一般就是博士老板或者其他和你很熟的老师。

Dear professor

I have just interviewed Peng Fu who is applying for a postdoc position in my group.

If I recruit her, she will work on the design and characterisation of disordered metasurfaces, and collaborate for the fabrication.

Can you compare her performance compared to the best PhD students in your department at IoP?

Thanks you in advance.

无脑夸自己!!

Dear Professor

Thank you very much for your reply and recommendations.

Can you tell me a little bit more on the Director's Excellent Award. I assume this award is for PhD students.

How many student get the award each year for how many candidates? I have seen that Peng Fu has a strong expertise in fab and simulation-optimization. What about her capability to develop new models for explaining / analysing nanophotonic experiments?

Thank you for your help.

问到弊端了，还是要实事求是的回答! + 语言的魅力!

与微纳加工和仿真优化相比，她在构建用于解释实验结果的新理论模型方面经验相对较少，但她致力于掌握现有的理论框架。她的工作主要运用耦合模理论来阐明尚未解决的现象。值得一提的是，在她最近发表的论文中，她。。。

同时精通实验工作和仿真优化无疑是一项挑战；但我相信，在您的指导下，她将进一步提升技能，并增强构建用于解释实验数据的新模型的能力。

I would like that we have a second interview next friday march 07. We will discuss the attached article. Please acknowledge reception of the email, and propose a 1h time slot paris time.

3.7这次面试表现个人感觉不是很好，这篇文章太理论了，有点读不懂。面试过程中，他出了一道题：求单摆运动周期。要求：只用简单的数学，没有微积分。我没算出来。

面试结束又来考我数学题；物理题；量子力学题（感受到了现在招人真的非常谨慎！！）

6. Fourier series

$\epsilon(x)$ is a periodic function with period a . Its Fourier coefficients are denoted by ϵ_m , so that $\epsilon(x) = \sum_{m=-\infty}^{\infty} \epsilon_m \exp(-jmKx)$, with $K = 2\pi/a$.

1/show that, if $\epsilon(x)$ is real, $\epsilon_m = \epsilon_{-m}^*$.

2/We consider the $N \times N$ matrix \mathbf{E} defined by $\mathbf{E}(m, n) = \epsilon_{m-n}$. N is an integer. Show that is Hermitian.

3/ \mathbf{K} is a $N \times N$ diagonal matrix with real coefficients. Show that $\mathbf{K}\mathbf{E}^{-1}\mathbf{K}$ is Hermitian.

发给他之后，我又在看我没搞明白的单摆运动周期那题，从3.8到3.9，给了他很多次答案，他都说不对，心态挺崩溃的。3.9下午求助同学，得到正确答案：量纲分析法。

Hello Peng,

I have decided to offer you a position.

If you accept it, we will enter long administrative issues for a start around september with a visa.

Let me know. I hope we will do nice research together.

3.12收到邮件，给我offer了！！

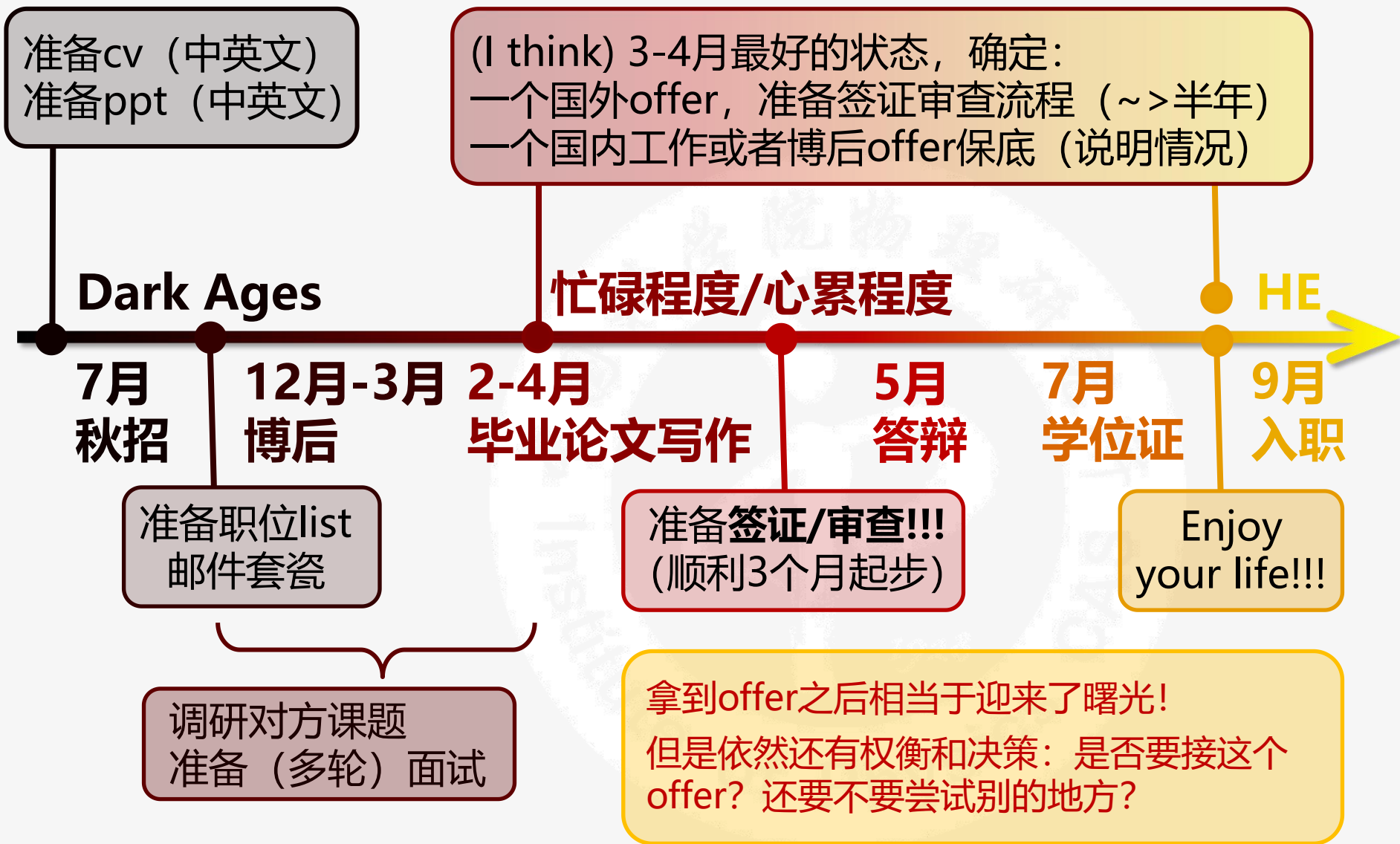
有些题目，其实错了挺多次的，自我感觉表现非常差，但是最后他还给了我offer，我猜测：

他们看重的可能不是一个本身就完美的人，每个人都会犯错，犯一两次错误不代表什么，重要的是我们要用坚持不懈的决心，我们没有被眼前的困难和奔溃的心态打倒，我们一直在坚持去寻求那个可能未知的答案。

如果我没有坚持去尝试纠正我当时面试时犯的 error/解决没有弄明白的题目，他可能也不会给我这个 offer。

所以感谢当时坚持不懈的自己！！

0 毕业时间线



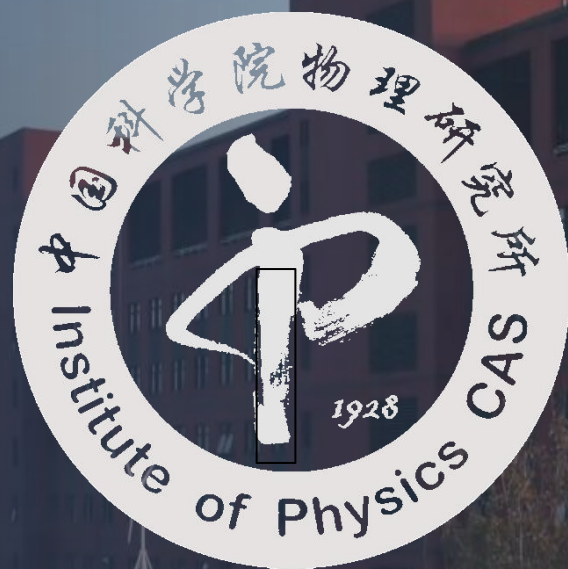
1. **提前申请!!! 在允许的时间范围内越早越好!** 法国安全审查：耗时近3个月，之后才能申请签证；德国签证：物理所的专业一般都会被审查，整个时长将近半年；
2. 德国/法国签证申请都需要预约或者抢号，所以即使是材料没有准备齐全的时候，也可以适当开始提前预约或者抢号了，多刷刷！
3. 准备安全审查/签证材料的时候尽可能规避一些敏感的词汇：量子、半导体、超导等等，可以替换成通俗易懂的名词（例如固体材料）
4. 保持良好的心态，和外国导师多沟通进展，审查过程中也可以让导师帮忙联系国外的外管局。

1. 工作上:

- 几乎所有研究所会定点赶人走，锁门，不允许加班。
- 外导基本都邮件联系，不加你社交软件，周末不会给你发邮件。

2. 生活上:

- Disadvantages: 相对国内娱乐生活很少，超市营业到8点左右，周末只开半天，商城周末基本不营业。仅酒吧营业，所里的娱乐活动是去酒吧聊天。
- Advantages: 法国整体风景很好，海岸线很长，西边大西洋，南边地中海；博物馆很多，每个月第一个周末免费；波尔多酒庄很有名，每年也有免费开放日；南法很多地区每个月特定时候TER列车2欧往返；对于28岁以下的人，可以订阅79欧每月的火车票，每个周末出去走走逛逛，几乎都是0欧往返。水果蔬菜种类相对（德国）丰富很多，海鲜也有很多。



中国科学院物理研究所

Institute of Physics Chinese Academy of
Sciences