

# IOP

**IOP** Publishing | science first

IOP进步源于您的需求—平台及电子书相关培训

Liang Chen | Account Manager, China



## Overview

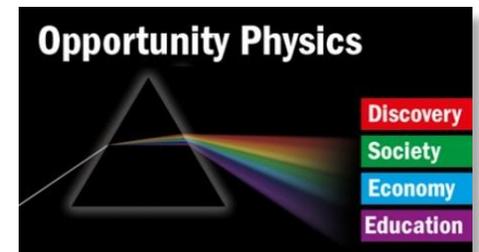
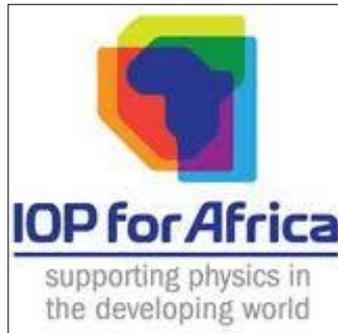
- IOP 和IOP Publishing简介
- 中国物理学研究分析及DRAA用户情况
- IOP电子图书
- IOPscience平台使用指南

**IOP**  
Institute of Physics



## 关于英国物理学会Institute of Physics

- 成立于1874年的学术协会
- 全球范围内现有超过50,000会员
- 其使命是推动物理学教育、研究和应用的发展
- 与政策制定者、学生、教育工作者和大众紧密联系
- [www. iop. org](http://www.iop.org)



## 关于英国物理学会出版社 - IOP Publishing

- IOPP是IOP下属的非营利性学术出版和传播机构
- 总部设在英国布里斯托（Bristol），并在费城、华盛顿、慕尼黑、北京和东京设有办公室
  - 全球共有360名员工
- IOPP是一个全球性机构，仅有5%的期刊作者和收入来自英国
- 为其他学协会和研究机构提供出版服务，这些机构包括：中国物理学会、中科院、欧洲核子研究组织、美国天文学会、日本应用物理学会等
- 所有利润均被用于支持英国物理学会

## IOP期刊的学科覆盖范围

- 天文学及天体物理学
- 生物学
- 化学
- 计算科学
- 教育学
- 工程学
- 材料学
- 数学
- 测量学
- 医学
- 纳米技术
- 物理学

## 非物理领域高质量期刊

### 2D Materials 《二维材料》

- 一本重要的高质量跨学科期刊，力争涵盖二维材料研究的各个方面
- 2019年影响因子为7.14，是材料科学领域的热门期刊

### Biofabrication 《生物制造》

- 生物制造领域的领先期刊
- 影响因子连年上升，2019年达到8.213，在生物工程领域排名前五，超过了本领域的70多种期刊



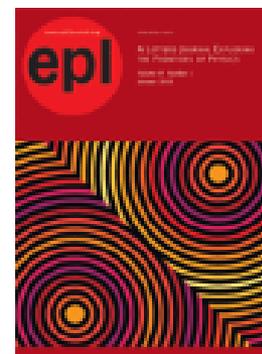
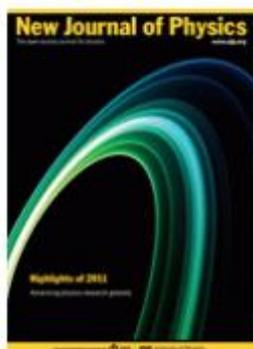
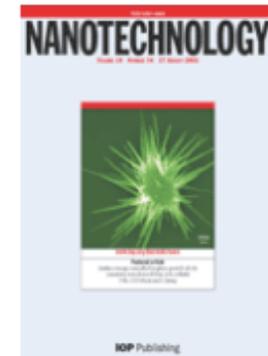
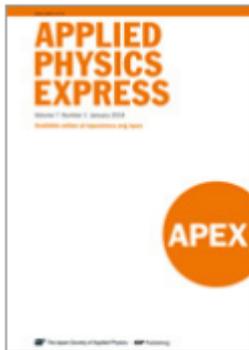
## 物理领域高质量期刊

### IOP经典系列期刊--Journal of Physics系列

- 物理领域经典期刊系列
- Journal of Physics A: Mathematical and Theoretical
- Journal of Physics B: Atomic Molecular and Optical Physics
- Journal of Physics: Condensed Matter
- Journal of Physics D: Applied Physics
- Journal of Physics G: Nuclear and Particle Physics

## 工程领域的IOP期刊

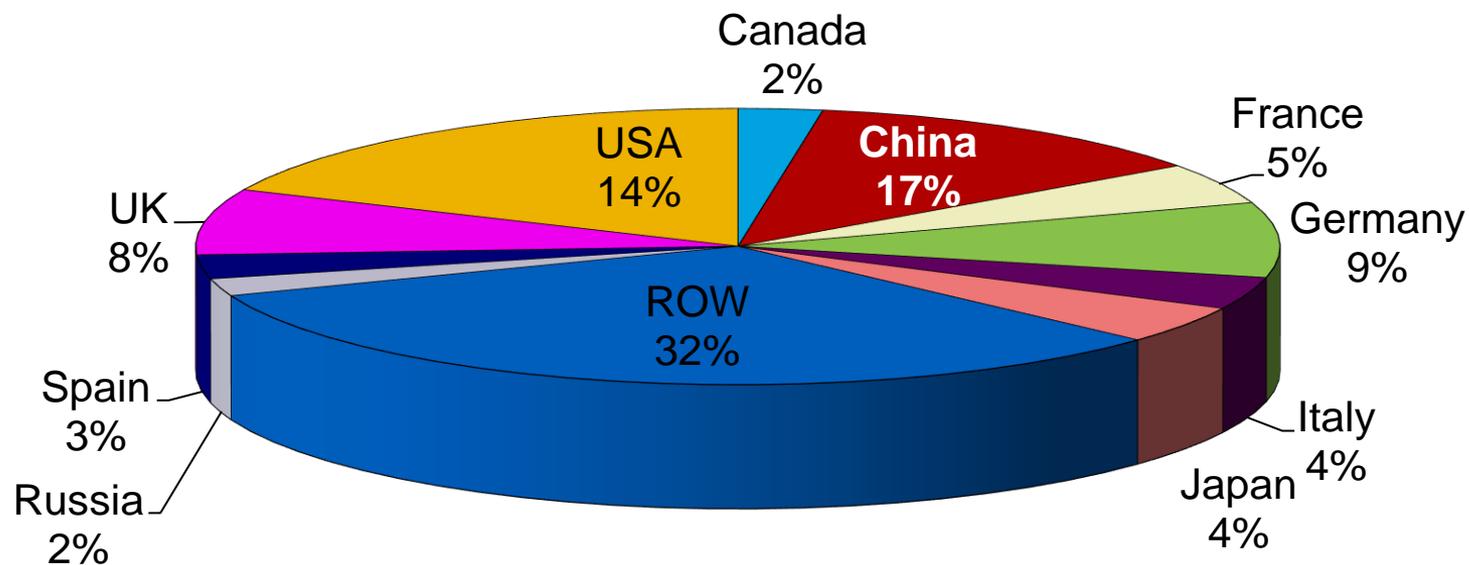
- 102,000 + articles
- >40 Journals



**IOP出版下列学协会的期刊**

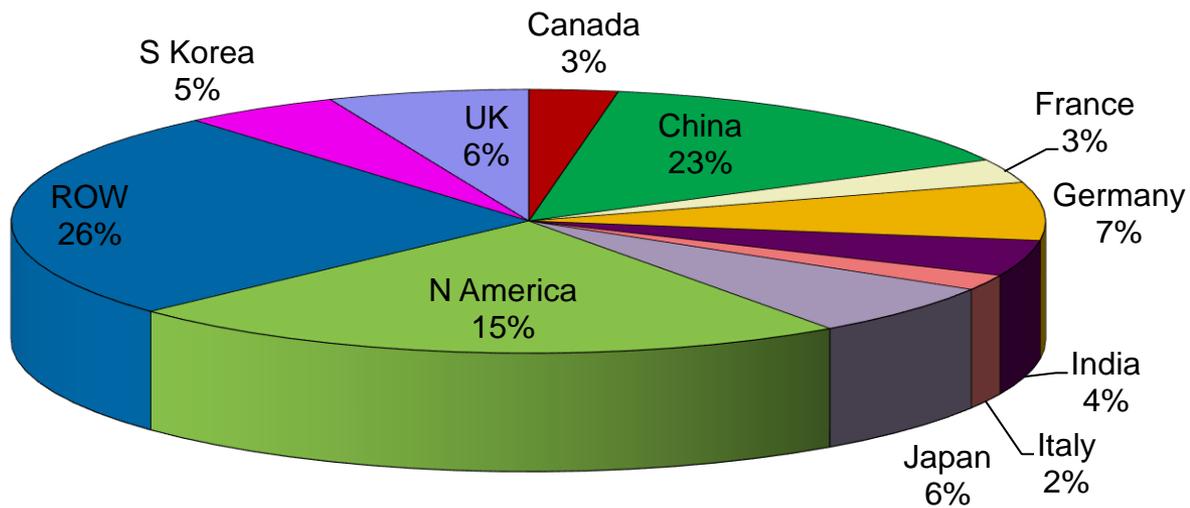
英国物理学会	中国物理学会	欧洲物理学会
德国物理学会	法国物理学会	俄罗斯科学院
欧洲光学学会	国际计量局	伦敦数学学会
国际原子能机构	瑞典皇家科学院	中科院等离子所和中国力学学会
医学物理和工程学会	美国天文学会	国际呼吸研究协会和国际呼吸气味研究学会
日本流体力学会	放射保护学会	意大利里雅斯特国际高级研究生院
中国天文学会		

## 2020年IOP作者分布情况



## IOP全球下载量示意图

IOP Journals - Full-Text Article Downloads by Country 2018

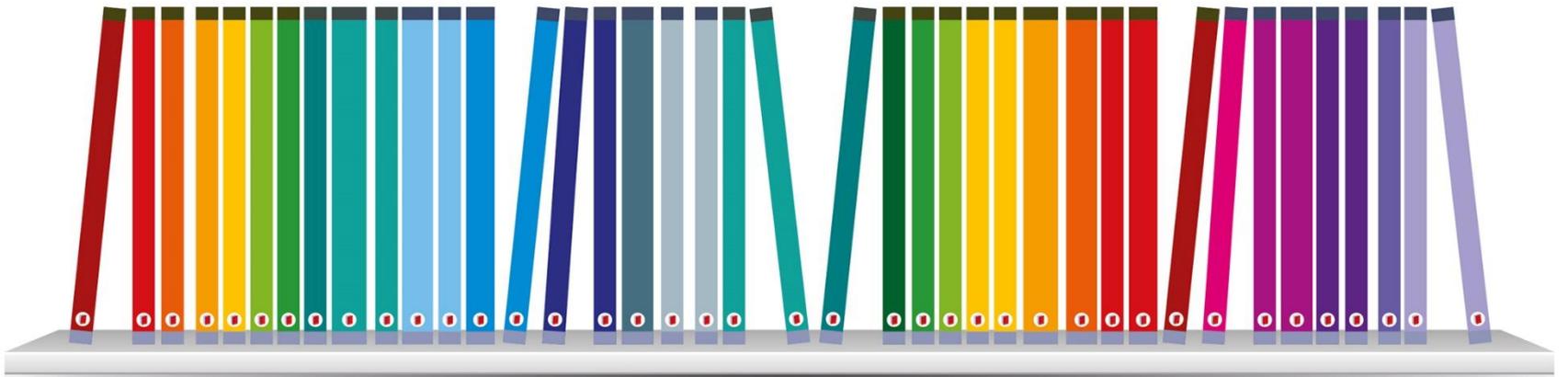


## IOP期刊数据库-DRAA集团概况

- IOP为DRAA集团成员开放86种电子期刊，72种电子期刊100%被SCI收录，47种期刊影响因子高于2。期刊综合影响因子：3.173
- 86种期刊包含DRAA组团的72种期刊+NSTL全国授权的14种期刊
- 2002年开始组团
- IOP-DRAA集团现有120家成员
- 用户增加中……

## **IOP电子书数据库-DRAA集团概况**

- 2015年开始组团
- IOP-DRAA集团现有40余家成员
- 用户增加中……



## IOP电子书获得的国际奖项



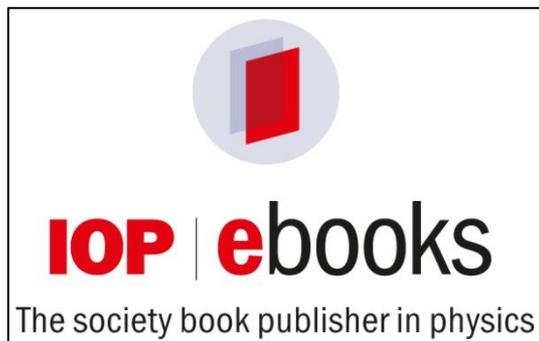
伦敦书展国际卓越成就奖中的国际学术和专业出版商奖

全球学术与专业出版者协会最佳创新奖



## 一个简单而大胆的梦想

数字化的物理图书先导选集

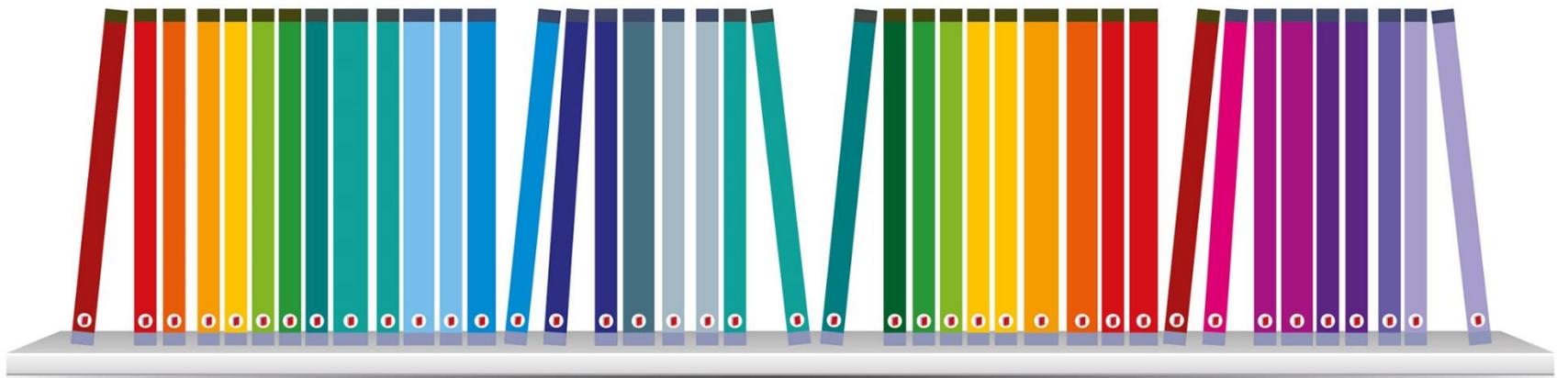


数字化- 一个面向未来的图书计划

领先声音- 高质量物理图书的精选集

物理学协会出版社 - 第一家主流物理学协会图书出版社

# 数字化

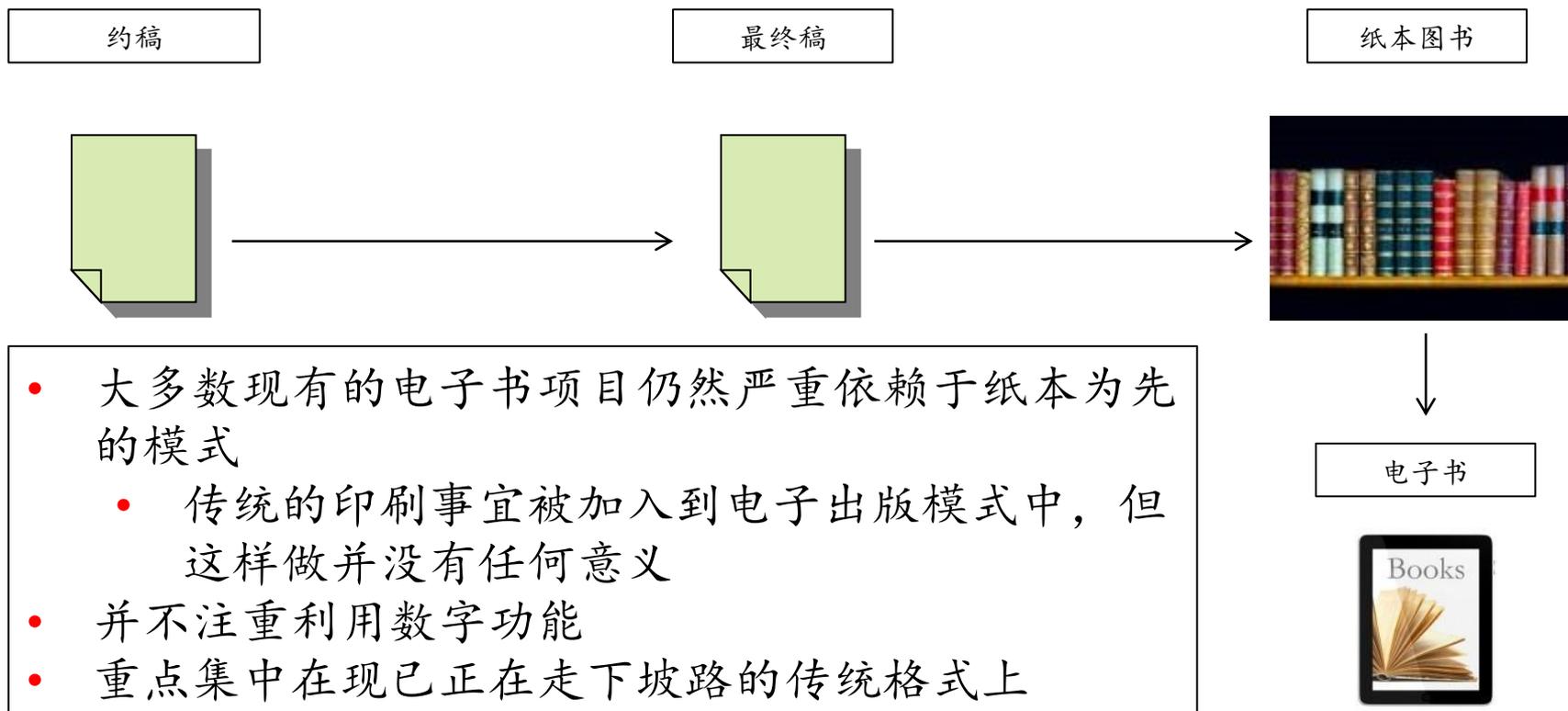


## 现有的出版商 - 传统的印刷方法

基于纸本销售的版  
税模式

较慢的生产时间和过程

数字版权管理

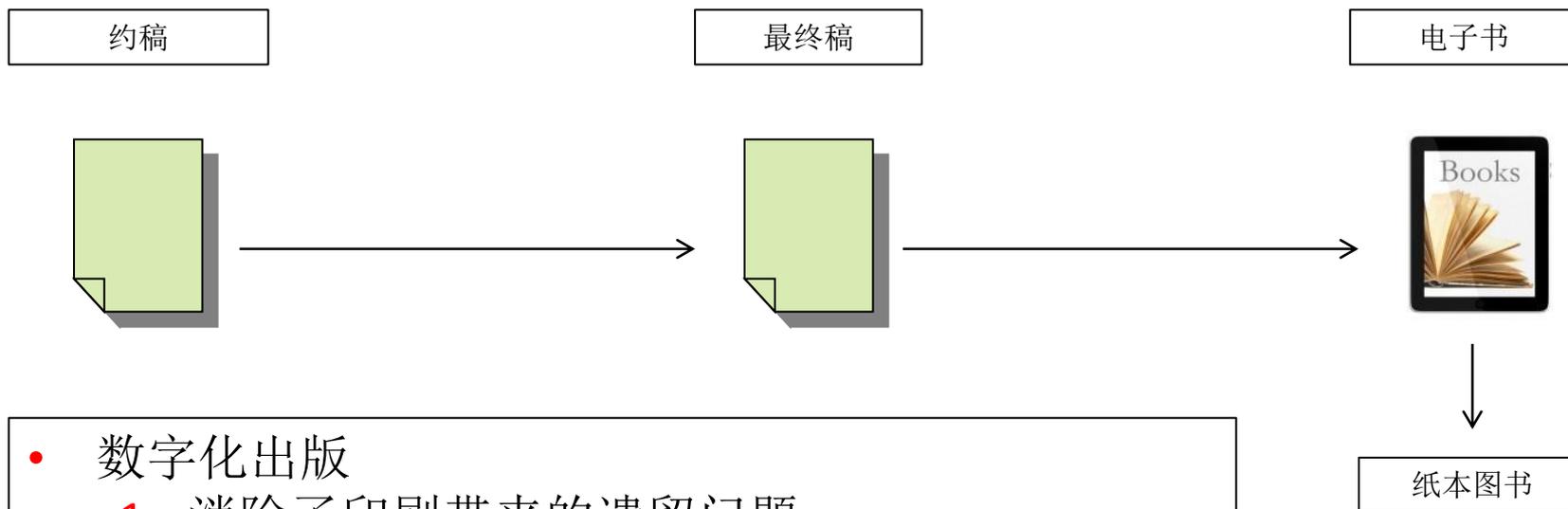


## IOP 的方法 – 数字化出版

基于电子销售的版  
税模式

快速的生产时间和过程  
融入丰富的多媒体内容

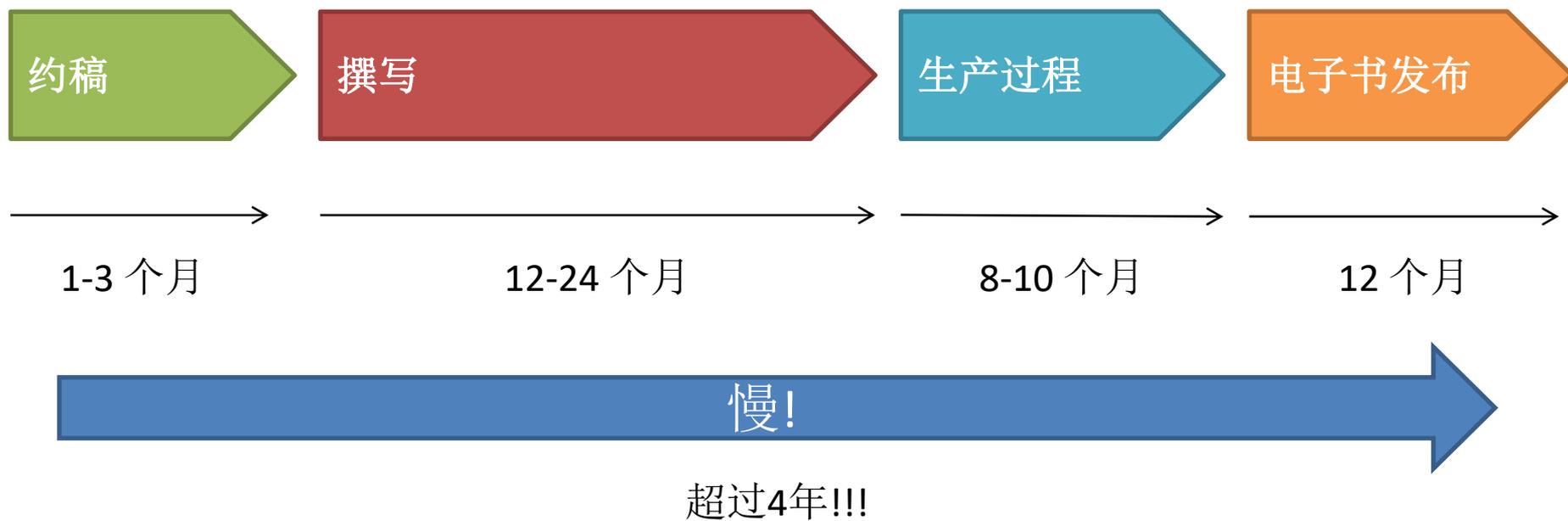
灵活的商业模式



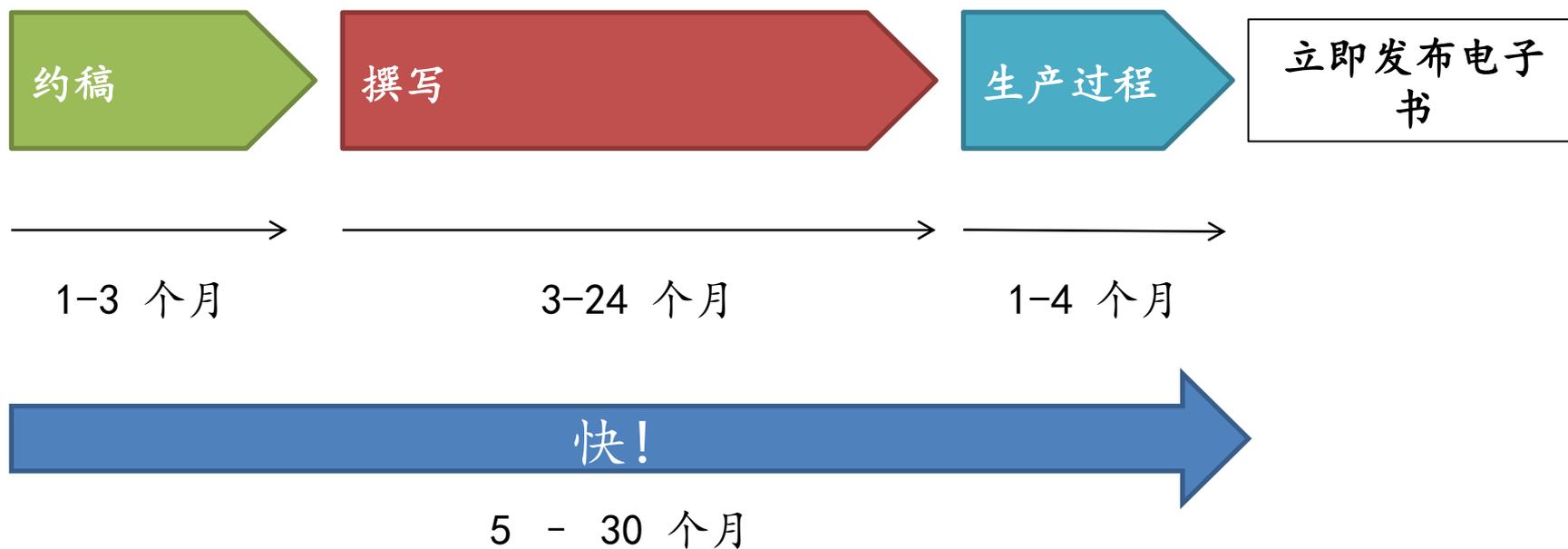
- 数字化出版
  1. 消除了印刷带来的遗留问题
  2. 专注于完全利用数字能力



## 业内一般图书出版流程



## IOP 图书出版过程



## 数字化

**数字图书**可以提供比纸质图书更丰富的功能

探索性

便捷性 (24/7 & off-campus access)

兼容性- 并发用户

永久性- 无损坏、无需替换

提供使用统计数据及Marc数据

章节级HTML, PDF和ePUB3数据

完全融合的期刊和图书平台

无并发用户和DRM限制

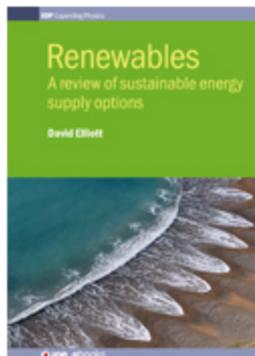
快速的出版时间- 在1-3个月内出版

多媒体嵌入- 音频和视频成为图书的一部分

交互式图表和数学公式

# Renewables

A review of sustainable energy supply options



## Introduction

**Authors:** Elliott David

[Hide affiliations](#)

David Elliott is Emeritus Professor of Technology Policy at the Open University, where he has focused on renewable energy policy.



PDF



ePub

D Elliott 2013 *Renewables* chapter 1. doi:10.1088/978-0-750-31040-6ch1

Published September 2013.

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[Abstract](#)

[Renewable energy: an overview of the issues and options](#)

[1.1 Why renewables?](#)

[1.2 Which sources are emerging?](#)

[1.3 What are the problems?](#)

[1.4 The structure of this book](#)

## Abstract

Renewable energy is a rapidly expanding field, based on the development of a range of new technologies and energy sources, the use of which could be part of the answer to climate change and energy security concerns. This book reviews the basic technological options and what is happening around the world, so as to convey the sense of excitement that abounds in this new area of technological development. But it also looks at the problems, including local environmental impacts and the need to deal with the variability of some renewable energy sources. This introduction sets the scene by briefly describing the key options and state of play, as well as some of the problems, and also provides a guide to energy units and issues.

MathJax [On](#) | [Off](#)

BibTeX format (bib) ▾

[Export citation and abstract](#)

## Renewable energy: an overview of the issues and options

Renewable sources of energy, sometimes simply called 'renewables', are increasingly being used to meet our needs. This book attempts to review the state of play and explain how and why this expansion can and should continue, and indeed accelerate.

## 关于电子书精选集

### 两个相辅相成的电子书精选集 - 同一平台

#### IOP 简明物理选集

合作出版机构

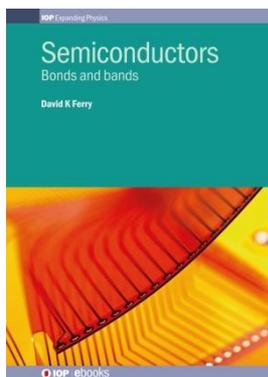


- 简明 - 70-120 页
- 快速出版 - 热点论题的首本图书
- 跨学科 - 为物理学家和非物理学家提供的物理图书
- 本科生 - 研究员级别

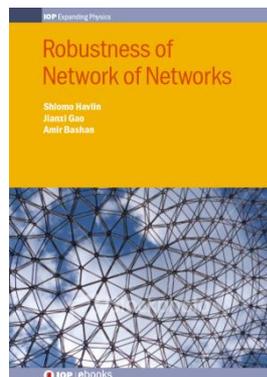
#### IOP 拓展物理选集

- 深入 - 200-500 页
  - 研究专著
  - 研究生/高级本科生教材
- 权威 - 论题中的权威声音
- 非常高的生产质量
- 本科毕业生 - 研究员级别

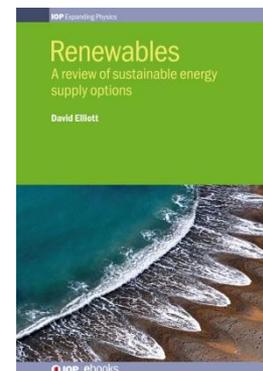
## 拓展物理 - 先导声音



David K. Ferry 教授  
亚利桑那州立大学



Shlomo Havlin教授  
巴伊兰大学



David Elliott教授  
开放大学

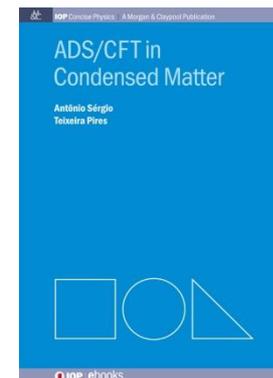
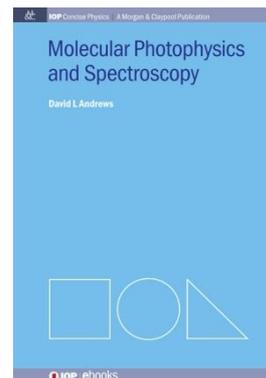
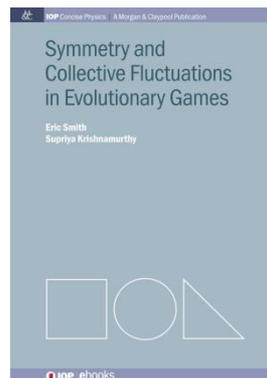
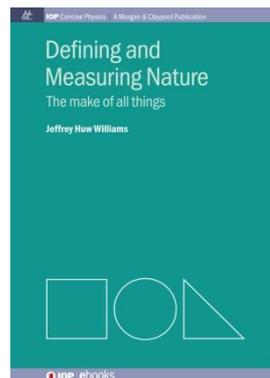
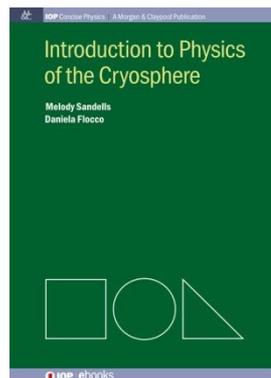
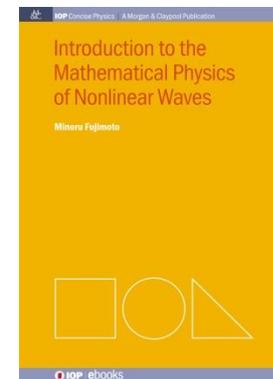
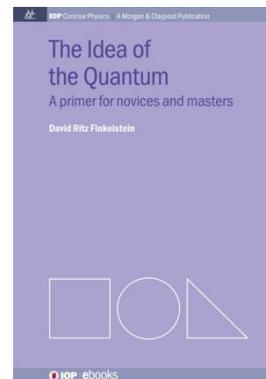
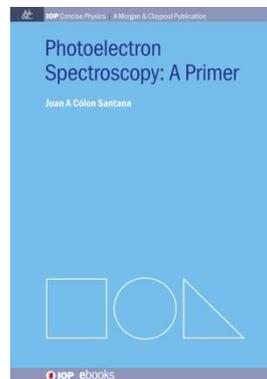
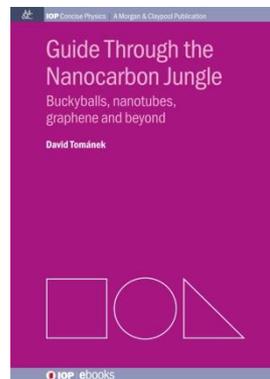
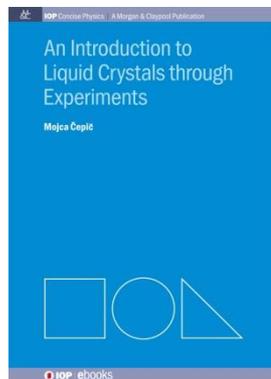


John Inglesfield教授  
卡迪夫大学



Yury Grabovsky博士  
天普大学

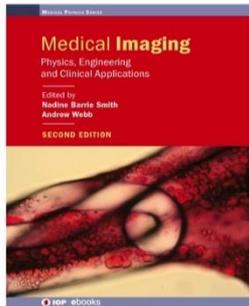
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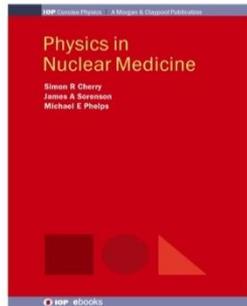
## 学科覆盖

广泛的学科范围 - 横跨整个物理学领域

medical titles

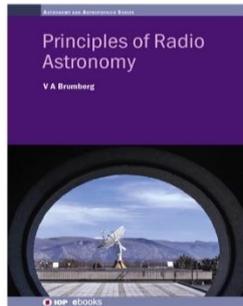


IOP

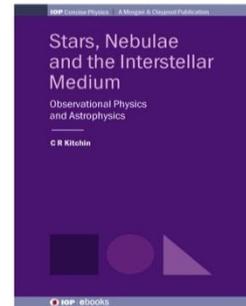


M&C + IOP

astronomical titles

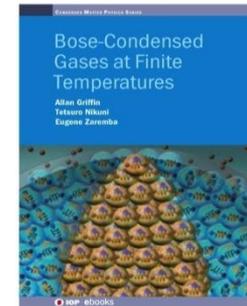


IOP

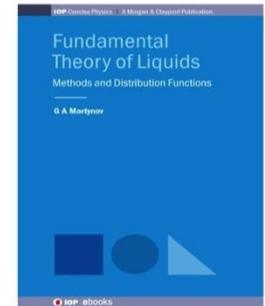


M&C + IOP

condensed matter titles



IOP



M&C + IOP

atomic and molecular physics

environmental physics and green energy

high energy and particle physics

quantum physics

condensed matter physics

biophysics

medical physics and biomedical engineering

quantum information and quantum computing

optics and photonics

geophysics and planetary science

nuclear physics

astronomy and astrophysics

sensors and instrumentation

materials science

statistical physics and thermodynamics

nanoscience and nanotechnology

applied and industrial physics

electronic materials and devices

mathematical and computational physics

plasma physics series

## 针对DRAA用户进行的电子书推广活动

### 1. 在线研讨会 (online webinar)

目的：为电子书作者和读者创造在线交流的机会。

### 2. 检索大赛

目的：让更多的读者了解IOP电子书的内容和检索便利性

### 3. 微信幸运大转盘活动

目的：为更多的研究人员与学生及时发送IOP电子书相关的最新消息。

# IOP

**IOP** Publishing | science first

**IOPscience 使用指南**

## With IOPscience you can

- 加快研究速度：强化的搜索过滤系统帮助您更快地找到相关资料
- 节省时间：重回之前搜索结果
- 与时俱进：在新内容发表后，收取RSS即时信息和电邮提醒
- 互动与分享：可做社交书签以分享文章
- 个性化：为信息提醒设置个人化方式，保存感兴趣的文章，并可阅读专业领域新发表的论文 / 文章
- <http://iopscience.iop.org>



**IOPscience**

<http://iopscience.org>

## 主页和搜索

The screenshot shows the IOPscience website homepage. At the top, there is a navigation bar with links for Journals, Books, Publishing Support, and Login. A search bar is located in the center, and an Article Lookup button is on the right. The main content area is divided into several sections: Journals list, IOPselect, Review articles, Subject collections, Publishing partners, IOP Conference Series, IOPcorporate, Open access, and Customer services. A sidebar on the right contains a Librarians section and a search bar. The bottom section features a 'Featured journals' section with six journal covers: metrologia, NANOTECHNOLOGY, New Journal of Physics, Nonlinearity, epi, and Nuclear Fusion. Below this is a 'Latest books' section with the text 'Born-digital essential physics books.'

浏览期刊、电子书和出版帮助指南

联络客服部门获取更多关于平台使用的帮助

访问图书馆员页面 librarians.org 获取关于订阅的更多信息

快速搜索

在主页上方的搜索栏中可以选择通过关键词在标题、摘要、作者、单位、全文和学科中进行搜索

## 检索结果与二次检索

The screenshot shows the IOPscience search results page for the query "nano". The search bar at the top contains the word "nano" and the search button is labeled "Search". Below the search bar, there are navigation links for "Journals", "Books", "Publishing Support", and "Iopsciencefirst".

On the left side, there is a "Refine your search" section with several filter options, each with a plus sign and a dropdown arrow:

- Apply filters (button)
- Clear filters (button)
- Date published
- Journals
- Authors
- Publication type
- Open access

The main content area displays "The top 500 results for 'nano' are:" and "Showing 1-10 of 300". There are options for "Email alert", "RSS search", and "Sort by" (set to "Relevance").

The results list includes the following entries:

- JOURNAL ARTICLE OPEN ACCESS**  
The effect of brushing with nano calcium carbonate and calcium carbonate toothpaste on the surface roughness of nano-implant  
D H Anja, D J Indran and E Heris  
2017 *J. Phys.: Conf. Ser.* **884** 012058 <https://doi.org/10.1088/1742-6596/884/1/012058>  
View abstract View article PDF
- JOURNAL ARTICLE OPEN ACCESS**  
Characteristics of Cement Concrete with Nano Alumina Particles  
P Jagadeesha and C Raghavayya  
2017 *IOP Conf. Ser.: Earth Environ. Sci.* **80** 012006 <https://doi.org/10.1088/1755-1315/80/1/012006>  
View abstract View article PDF
- JOURNAL ARTICLE OPEN ACCESS**  
The Effect of Nano Loading and Ultrasonic Compounding of EtA/LDPE/Nano-magnesium Hydroxide on Mechanical Properties and Distribution of Nano Particles  
I A Azman, R M Saleh, S M Azzuddin and M I Shuib  
2018 *IOP Conf. Ser.: Mater. Sci. Eng.* **306** 012002 <https://doi.org/10.1088/1757-6949/306/1/012002>  
View abstract View article PDF
- JOURNAL ARTICLE OPEN ACCESS**  
Preparation of SiC based Aluminium metal matrix nano composites by high intensity ultrasonic cavitation process and evaluation of mechanical and tribological properties  
N V Murthy, A Prasad Reddy, N Sekharaj and C S P Rao  
2016 *IOP Conf. Ser.: Mater. Sci. Eng.* **149** 012006 <https://doi.org/10.1088/1757-6949/149/1/012006>  
View abstract View article PDF
- JOURNAL ARTICLE OPEN ACCESS**  
Isocyanate-modified Nano-SiO<sub>2</sub> and Corresponding Process Optimization  
X F Ye, X Y Huang, B Yu, J N Wang, D C Chen, H W Hu and M L Chang  
2017 *IOP Conf. Ser.: Mater. Sci. Eng.* **229** 012023 <https://doi.org/10.1088/1757-6949/229/1/012023>  
View abstract View article PDF
- JOURNAL ARTICLE**  
Fabrication of high-aspect-ratio nano structures using a nano x-ray shadow mask  
Yong Chul Kim and Seung S Lee  
2008 *J. Microtechnol. Microeng.* **18** 015006 <https://doi.org/10.1088/0960-1317/18/1/015006>  
View abstract View article PDF
- JOURNAL ARTICLE OPEN ACCESS**  
Effect of nano-clay fillers on mechanical and morphological properties of Napier/epoxy Composites  
W H Lim, M S A Majid, M J M Ridwan, K S Basarudin and M Afend  
2017 *J. Phys.: Conf. Ser.* **908** 012010 <https://doi.org/10.1088/1742-6596/908/1/012010>  
View abstract View article PDF
- JOURNAL ARTICLE OPEN ACCESS**  
The Effect of Mo addition in stainless steels on the corrosion behavior in the nano fluids contain Al<sub>2</sub>O<sub>3</sub> nano particles  
Djoni Hadi Prayitno and Dini Gusmanij Sarif

可以通过相关性和时效性对搜索结果进行排序

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## Subject Collections 学科选集

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### 学科选集

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The screenshot shows the IOPscience website for the Journal of Physics: Condensed Matter. The page includes a navigation bar with the IOPscience logo, a search bar, and an 'Article lookup' dropdown. The main content area is divided into several sections:

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# Article Page



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## Increasing the light extraction efficiency of monolayers using liquid micro-lenses

C S Woodhead<sup>1</sup>, J Roberts<sup>1</sup>, Y J Noh<sup>1</sup> and R J Young<sup>1</sup>

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2D Materials, Volume 4, Number 4, December 2016



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### Abstract

The recent discovery of semiconducting two-dimensional materials has led to a variety of applications, including optoelectronics, quantum computing, and catalysis. However, the low light absorption and emission efficiency of these materials is a major challenge. We present a solution to tackle both of these problems simultaneously, by deterministically placing an epoxy based micro-lens directly onto the materials' surface. We show that this approach enhances the photoluminescence of tungsten diselenide (WSe<sub>2</sub>) monolayers by up to 300%, and nearly doubles the imaging resolution of the system. Furthermore, this solution fully encapsulates

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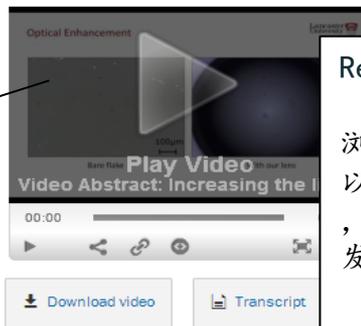
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of their surrounding environment. We present a solution to tackle both of these problems simultaneously, by deterministically placing an epoxy based micro-lens directly onto the materials' surface. We show that this approach enhances the photoluminescence of tungsten diselenide (WSe<sub>2</sub>) monolayers by up to 300%, and nearly doubles the imaging resolution of the system. Furthermore, this solution fully encapsulates

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Let us first start by describing tidal gravitational forces in Newtonian physics. The force of gravity exerted by an object of mass  $M$  on a particle of mass  $m$  a distance  $r$  away is  $\vec{F} = -\hat{r}GMm/r^2$ , where  $\hat{r}$  is the unit vector pointing from  $M$  to  $m$  and  $r$  is the distance between the center of  $M$  and  $m$ . The corresponding acceleration is  $\vec{a} = -\hat{r}GM/r^2 = -\nabla\phi$ . We assume now that the mass  $m$  is spherical of radius  $\Delta r$ . The distance of  $M$  and the center of  $m$  is  $r$ . The force of gravity exerted by the mass  $M$  on a particle of mass  $m$  at a distance  $r \pm \Delta r$  away on the line joining the centers of  $M$  and  $m$  is given by  $\vec{F} = -\hat{r}GMm/r^2$ . The corresponding acceleration is

$$\vec{a} = -\hat{r}GM \frac{1}{(r + \Delta r)^2} = -\hat{r}GM \frac{1}{r^2} \quad (1.99)$$

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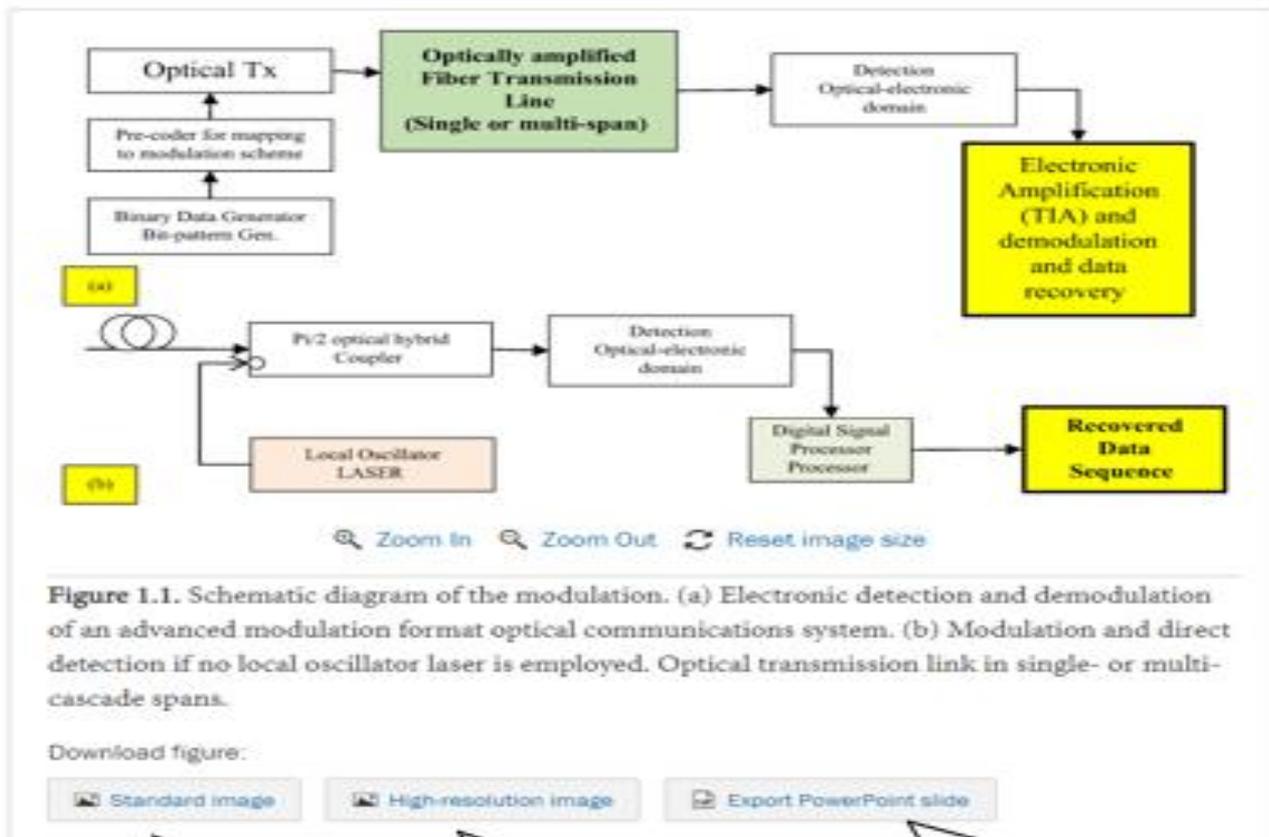
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that has given us this high technology life. This is nicely illustrated by Professor Jesper Nygård in the video of figure 1.1. Several research technologies are discussed in this video, and we will treat many of them in the following chapters of this book.



**Figure 1.1.** Jesper Nygård on nanotechnology, artificial atoms, and the future of computing. (Video hosted by Professor [Jesper Nygård](#), Neils Bohr Institute, and produced by the Compound for Neils Bohr Institute, included [here](#) with their permission.)

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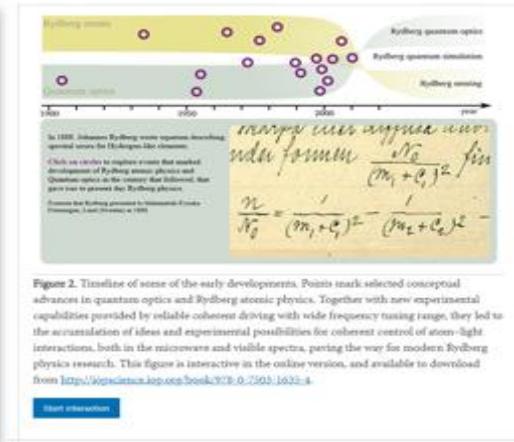
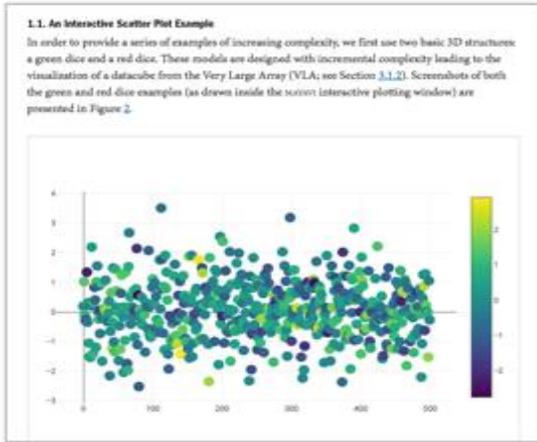
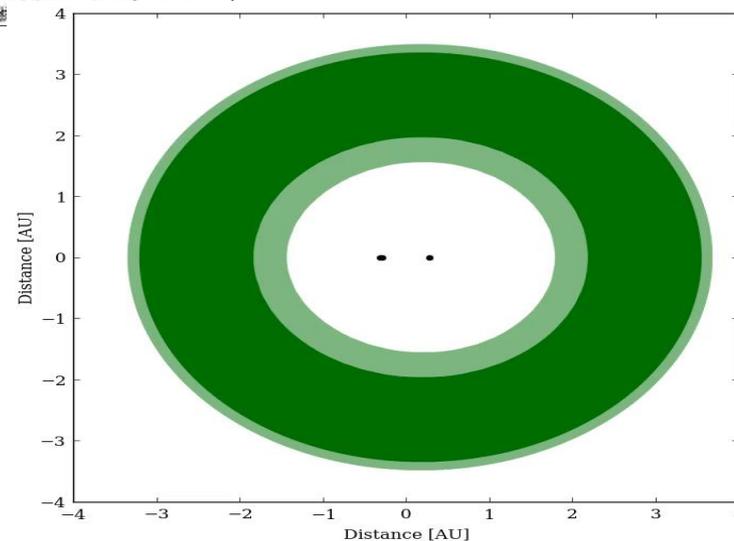


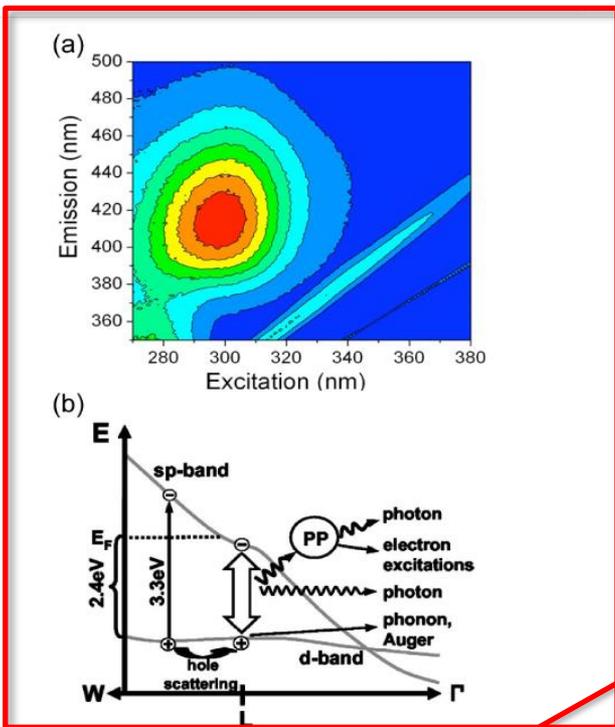
Figure 2. Timeline of some of the early developments. Points mark selected conceptual advances in quantum optics and Rydberg atomic physics. Together with new experimental capabilities provided by reliable coherent driving with wide frequency tuning range, they led to the accumulation of ideas and experimental possibilities for coherent control of atom-light interactions, both in the microwaves and visible spectra, paving the way for modern Rydberg physics research. This figure is interactive in the online version, and available to download from <http://www.science.iop.org/book/978-0-7503-1632-4>.

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Figure 6. (a) One-photon fluorescence excitation-emission profile of pure 13 nm AuNPs. The line profile observable in the excitation wavelengths ranging from 310 to 380 nm is due to Raman scattering from water. (b) Schematic representation of electronic energy bands and transitions that give rise to AuNP absorption and fluorescence. Abbreviations (PP= particle plasmon). Reproduced from Goldys and Sobhan [112] (a) and Dulkeith et al [110] (b).

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