

Yu-Jie Cen (he/him)

E-mail: 202020129949@mail.scut.edu.cn | Tel:+086-15521284374 | <https://diroccen.github.io>

EDUCATION

School of Physics and Optoelectronics, South China University Of Technology

M.S. | Degree in Theoretical Physics (2020.9-2023.6)

B.S. | Degree in Applied Physics (2016.9-2020.6)

RESEARCH EXPERIENCE

- Mentored by [Xiao-Bao, Yang](#) and [Yu-Jun, Zhao](#) in the [Computational Condensed Matter Physics Group](#).
 - A rapid method for screening ground state candidate structures is proposed to accelerate high-throughput first-principle calculation.
 - Improving search efficiency of special quasirandom structures (SQS) in high-entropy alloys by supervised learning.
 - Search for the ground state structure of two-dimensional boron monolayers by structural self-assembly methods.
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PUBLICATIONS

- Yu-Jie Cen, Chang-Chun He, Shao-Bin Qiu, Yu-Jun Zhao, and Xiao-Bao Yang, Determining ground states of alloys by a symmetry-based classification, [Phys. Rev. Materials 6, L050801 \(2022\)](#).
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SKILLS

- Experienced in Python and Matlab. Working knowledge of Linux systems/tools. Familiar with material design packages [ASE](#) / [ICET](#) / [DScrive](#) / [CGCNN](#) / [Spglib](#).
 - Scientific computing and machine learning (ML) expertise for physical science problems. Experienced in parallel computation.
 - First-principles calculations experience (VASP), such as Formation Energy, Band, DOS, Elastic Modulus and so on.
 - Latex and Markdown.
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FELLOWSHIPS AND AWARDS

Outstanding Graduate student (2020)

School scholarship (2017-2019)

TEACHING AND OTHER EXPERIENCE

Administrator of the server(computing) in [CCMPG](#) (2021 - now)

Teaching assistant of General physics (2021.9 - 2022.1)

Referees information

Prof. Xiao-Bao Yang (Mentor)

E-mail: scxbyang@scut.edu.cn

ResearchGate: <https://www.researchgate.net/profile/Xiao-Bao-Yang>

Research group: [Computational Condensed Matter Physics Group](#)

Prof. Yu-Jun Zhao (Co-Mentor)

E-mail: zhaoyj@scut.edu.cn

ResearchGate: <https://www.researchgate.net/profile/Yu-Jun-Zhao>

Research group: [Computational Condensed Matter Physics Group](#)



华南理工大学本科生出国成绩单

South China University of Technology

Undergraduate Transcript for Overseas Study

Major Curriculum

College: School of Physics and Optoelectronics
Enrollment Date: 2016.09

Speciality: Applied Physics
Student No: 201630491989

Schooling Period: 4 years
Name: CEN YU JIE

Names of course	Attrib	TCH	CR	Mark	Names of course	Attrib	TCH	CR	Mark
2016-2017 1st term					Course Design for Computational Physics	RC	2W	2.0	98
Military Training	RC	3W	3.0	A	Introduction of the Marxism Basic Principle	RC	48	3.0	89
Calculus(1)	RC	80	5.0	92	Physical Education (4)	RC	32	1.0	88
Linear Algebra & Analytic Geometry	RC	48	3.0	87	Athletic sports Appreciation	GE	32	2.0	77
Fundamental of Physics I	RC	48	3.0	77	Digital Electronic Technique II	RC	64	4.0	83
Evolution of Physics	EC	16	1.0	88	2018-2019 1st term				
Ideological Moral Cultivation and Introduction to Law	RC	36	3.0	83	Experiment of Digital Electronics	RC	16	0.5	85
College English (1)	RC	64	4.0	67	Modern Physical Experiment	RC	64	2.0	A
Foundations of Computer	RC	40	2.0	95	Signals and Systems	RC	64	4.0	96
C++ Programming Foundations	RC	48	3.0	88	Thermodynamics and Statistical Physics	RC	48	3.0	86
Physical Education (1)	RC	32	1.0	83	Exercitation of Electronic Technology II	RC	2W	2.0	A
2016-2017 2nd term					Quantum Mechanics	RC	64	4.0	90
Military Principle	RC	16	1.0	76	Theoretical Acoustics	EC	48	3.0	65
Engineering Drawing	RC	48	3.0	93	Electrodynamics (2)	EC	32	2.0	75
Probability & Mathematical Statistics	RC	48	3.0	84	Frontier and physics of emerging industry	EC	32	2.0	85
Calculus(2)	RC	80	5.0	96	Western Paintings of the 20th Century: form an Aesthetic Perspective	GE	32	2.0	78
Fundament of Physics (2)	RC	80	5.0	97	2018-2019 2nd term				
Experiment of Fundamental Physics I	RC	32	1.0	B	Materials Physics	RC	32	2.0	83
Evolution of the Universe	EC	16	1.0	B	Solid State Physics	RC	64	4.0	79
An Introduction to the Thought of Mao Zedong and Theory of Socialism with Chinese Characteristics	RC	96	6.0	77	Semiconductor Physics and Devices	RC	64	4.0	85
College English (2)	RC	64	4.0	78	Course Design for Materials Physics	RC	2W	2.0	90
Physical Education (2)	RC	32	1.0	90	2019-2020 1st term				
Piano Music Appreciation	GE	32	2.0	88	Public Service	RC	1W	1.0	B
2017-2018 1st term					Analysis of the Situation and Policy	RC	128	2.0	93
Health Education	GE	32	2.0	70	Special Experiments for Applied Physics	RC	64	2.0	89
Electric Circuits and Analog Electronic Circuits	RC	80	5.0	63	Practice of Production	RC	2W	2.0	B
Complex Variable	RC	32	2.0	87	2019-2020 2nd term				
Theoretical Mechanics	RC	48	3.0	91	Diploma Project	RC	14W	14.0	A
Fundament of Physics III	RC	64	4.0	72	Practice on Diploma Project	RC	4W	4.0	C
Experiment of Fundamental Physics II	RC	32	1.0	A	Blank below				
An Outline of Chinese Near Past and Contemporary History	RC	24	2.0	86					
Engineering Ethics	GE	32	2.0	84					
Physical Education (3)	RC	32	1.0	92					
2017-2018 2nd term									
Engineering Training I	RC	2W	2.0	83					
Experiments of Electric Circuits and Analog Electronic Circuits	RC	32	1.0	78					
Integral Transformation	RC	16	1.0	79					
Equation of Mathematical Physics	RC	48	3.0	94					
Principle and Application of Microcomputer	EC	48	2.5	87					
Electrodynamics	RC	48	3.0	82					
Computational Physics	RC	64	3.5	86					
Data Structures	EC	48	2.5	61					
Atomic Physics	RC	64	4.0	73					

Remarks:

Chen Xiaoping

教务处处长签字:
Dean of The Registrar's Office:



Record Seal of The Registrar's Office:

打印日期

Date: 2022-09-07



华南理工大学本科生出国材料
South China University of Technology Undergraduate Materials for Overseas Study

地址: 广州市天河区五山路381号 华南理工大学教务处 电话/tel: +86-20-87111492 传真/fax: +86-20-87110726 邮箱/e-mail: j2jw@scut.edu.cn
Address: The Registrar's Office, South China University of Technology, 381 WuShan Road, Guangzhou, P.R China

CERTIFICATION

Name of Student: CEN YU JIE

Gender: Male

Date of Birth: 13/ 01/ 1998

GRADE POINT AVERAGE

This is to certify that Mr. CEN YU JIE 's cumulative grade point average was 3.54 at the end of his eighth semester with a scale of 4 , in the speciality of Applied Physics , School of Physics and Optoelectronics.

The Registrar's Office
South China University of Technology
7 September 2022





华南理工大学
South China University of Technology

Graduate Student's Academic Record

Name: CEN Yujie Student Number: 202020129949
Department: School of Physics and Optoelectronic Technology
Specialty: Theoretical Physics
Type of Degree: Master
Time of Enrollment: September 2020 Duration: 3 Years, Full-time

Course Title	Hours	Credits	Marks	Date of Exam	Course Item
Comprehensive English	64	3	74	2020-12-29	R
Dialectics of Nature	18	1	92	2020-12-31	R
Thesis Writing and Academic Norms	32	2	92	2021-01-06	R
Studies in Theory and Practice of Socialism with Chinese Characteristics	36	2	84	2021-06-29	R
Computational Condensed Matter Physics	48	3	96	2020-12-23	R
Advanced Quantum Mechanics	48	3	69	2020-12-23	R
Advanced electrodynamics	48	3	91	2021-01-05	R
General Relativity	32	2	86	2020-12-16	E
Solid State Physics (II)	32	2	73	2021-05-26	E
Advanced statistical physics	48	3	77	2021-06-22	E
Psychology and Life	32	2	89	2021-06-05	E
Required Credits: 26			Acquired Credits: 26		

Marks: The Percentage System, 60 is passing, 100 is full mark.

Course Item: R(Required Course), E(Elective Course).



Official Seal for Proof

Signature

[Handwritten Signature]

Date: 2022-08-22

Dean of Academic Administration



研究生在读证明

School Roll Certificate for Graduate Student

姓名	岑宇杰	Name	CEN Yujie
性别	男	Gender	Male
国家地区	中国	Nationality/ Region	China
证件号码	440923199801132414	ID No.	440923199801132414
出生日期	1998-01-13	Date of Birth	January 13,1998
学号	202020129949	Student No.	202020129949
培养层次	硕士	Type of Degree	Master
学制	3年	Duration	3 years, Full-time
入学日期	2020-09-06	Date of Enrollment	September 06,2020
学院	物理与光电学院	Department	School of Physics and Optoelectronic Technology
专业/领域	理论物理	Specialty	Theoretical Physics



证明专用章



证明专用章

主管领导签名

Signature

日期 2022-08-22

Official Seal for Proof

Signature, Dean of Academic Administration Date