Criteria for Award of Postgraduate Degrees in Physics

Article 1 Pursuant to the Opinions on Standardizing the Use of SCI Papers in Institutions of Higher Learning and Establishing Correct Evaluation Orientation issued by the Ministry of Education and the Ministry of Science and Technology (Jiaokeji [2020] No. 2), the Implementing Regulations of USTC for Award of Master's and Doctoral Degrees and the Spirit of the Relevant Instructions of USTC on the Training of Postgraduates, a scientific academic evaluation orientation has been established and the academic evaluation mechanism has been improved. The dissertation, i.e., the scientific research achievements of a postgraduate while studying for the degree shall be used as the main basis for awarding the degree. The Criteria for Award of Postgraduate Degrees in Physics is formulated upon discussion and decision made by the Degree Sub-Committee of the Physics Department.

Article 2 Requirements for the Study and Training Process of Postgraduates in Physics

2.1 International academic exchange ability: A doctoral candidate shall attend at least one international academic conference and exchange academic papers during his or her study, or make at least one short-term overseas study visit. After the international academic conference or short-term overseas study visit, the doctoral candidate shall promptly submit the relevant supporting documents to the faculty’s Registrar.

2.2 Academic exchange: During the doctoral program, a doctoral candidate shall attend at least one national or international academic conference, and doctoral candidates of the School of Physics shall attend at least one academic forum or annual academic conference held by the School, and participate in an academic exchange of his or her paper in the form of an oral presentation or a poster, and submit the supporting evidence to the faculty’s Registrar in time.

2.3 Course requirements in the field of specialization: All master’s and doctoral degree applicants shall meet the course requirements of the academic discipline in the training program.

2.4 Doctoral qualifying examination: Master's degree candidates shall pass the doctoral qualifying examination prior to progressing to the doctoral program prior to entering the doctorate stage. The examination, organized by the relevant academic discipline, will be held after the doctoral entrance examination for general candidates and will include those general candidates who are re-taking their examinations. General candidates who fail in the doctoral qualifying examination are regarded as having failed the re-examination and cannot be admitted. Candidates who seek to transfer from a master's to a doctoral program and who fail the doctoral qualifying examination may apply to re-take the examination in the following year, and may not transfer to the doctoral program if they fail again. The specific requirements shall be set by the relevant academic discipline.

2.5 Evaluation of dissertation prospectus: A doctoral candidate shall make a case for his or her dissertation topic and research approach, as well as prepare a dissertation prospectus prior to carrying out the research on the dissertation. The dissertation prospectus counts for 2 credits. One year before graduation, each sub-discipline shall assemble a review committee consisting of at least three experts and professors from the discipline and related disciplines to evaluate the dissertation prospectus for the doctoral dissertation. The doctoral candidate shall make an oral presentation of at least 20 minutes. The expert committee shall examine and grade the study progress and work on the dissertation prospectus, among others, and vote to pass or fail the candidate.

2.6 Program duration: A master's degree generally takes two to three years to complete, with a minimum of two years and a maximum of five years. A doctoral program generally takes three to four years to complete, with a minimum of two years and a maximum of eight years. The program duration for an integrated master's and doctoral program is generally five to six years, with a minimum of four years and a maximum of eight years.

Article 3 Requirements for Scientific Research Achievements of Doctoral Candidates in Physics

3.1 A doctoral candidate shall meet one of the following prerequisites prior to

applying for a doctoral degree:

3.1.1 The candidate, as the first author, has at least two academic papers related to the dissertation published or accepted by a high-level foreign or domestic authoritative journal with USTC as the first signed institution, and at least one paper in an English journal.

3.1.2 The candidate, as the first author and USTC as the first signed institution, has one academic paper related to the dissertation published in an authoritative foreign or domestic journal such as Science (or its sub-journals), Nature (or its sub-journals), Proceedings of the National Academy of Sciences of the United States of America, Physical Review Letters, Physical Review X, Astrophysical Journal Supplement, National Science Review and National Science Review (to be discussed separately by the Degree Sub-Committee).

3.2 Any one of the following scientific research achievements of a doctoral candidate is equivalent to one paper published in a high-level foreign or domestic journal

3.2.1 An academic paper related to the dissertation published in an SCI or EI journal;

3.2.2 An academic paper related to the dissertation published in an authoritative international journal such as Science (or its sub-journals), Nature (or its sub-journals), Proceedings of the National Academy of Sciences of the United States of America, Physical Review Letters, Physical Review X and Astrophysical Journal Supplement with him or her as the second co-first author and USTC as the first signed institution, and approved by the Supervisor with a written report stating the major contributions of the candidate to the paper;

3.2.3 The candidate shall have participated in a major national scientific mission or project, made important scientific or technical contributions and prepared the work report recognized by the competent authority (or the chief scientist or head of the expert group);

3.2.4 The candidate shall have participated in a large international collaborative team and prepared the internal work report (note) as Primary Author;

3.2.5 A candidate engaged in high-tech research shall have a conference paper related to research in the high-tech sector collected in any SCI or EI proceedings as the first author;

3.2.6 A state-level scientific research achievement award (ranked among the top five) or a provincial or ministerial-level scientific research achievement award (ranked among the top three); or

3.2.7 An invention patent granted as first inventor (except for the Supervisor's signature).

3.3 In other special cases, the Supervisor shall submit a written application and present the reasons at the meeting of the Degree Subcommittee of the Department (quorum of at least two-thirds of the subcommittee members) where a vote by secret ballot shall be conducted. Only if at least two-thirds of the members present vote in favor can the candidate be deemed to have met the graduation requirements for a doctoral degree. A report shall be submitted to the USTC Degree Committee for approval.

Article 4 Requirements for Scientific Research Achievements of Master's Candidates in Physics

4.1 A master's candidate is eligible to apply for a master's degree upon meeting one of the following prerequisites:

4.2 The candidate, as the first author (except for the Supervisor's signature), has at least one academic paper related to the thesis published or accepted by a high-level foreign or domestic journal or an authoritative domestic journal (see Annex) with USTC as the first signed institution.

4.3 Any one of the following scientific research achievements of a doctoral candidate is equivalent to one paper published in a high-level foreign or domestic journal

4.3.1 Published an academic paper related to the thesis in an SCI or EI journal;

4.3.2 Won a provincial or ministerial-level scientific research achievement award (ranked among the top three); or

4.3.3 Having an invention patent granted as the first inventor (except for the Supervisor’s signature) with the patent application having been officially disclosed or the patent certificate issued.

4.4 In other special cases, the Supervisor shall submit a written application, and a vote by secret ballot carried out at the Department Degree Subcommittee meeting (a quorum of at least two-thirds of the subcommittee members). Only if at least two-thirds of the members present vote in favor can the candidate be deemed to have met the graduation requirements for a master’s degree.

Article 5 This revision of the criteria for award of a doctoral degree represents additional requirements, and shall prevail in the event of any inconsistency with the Implementing Regulations of USTC for Award of Master's and Doctoral Degrees (Xiaoxueweizi [2009] No. 173); other provisions of the said implementing regulations shall remain valid.

Article 6 This criteria is also applicable to the disciplines of optical engineering and electronic science and technology (the sub-disciplines of physical electronics and microelectronics and solid state electronics only).

Article 7 The criteria shall be implemented from July 2020. (The original degree regulations and requirements for international students who enrolled prior to 2019 and who applied for a degree prior to December 31, 2021 shall apply).

Annex List of Academic Journals Recognized by the Degree Subcommittee

Serial Number	The Title of Journal	Serial Number	Sponsor
1	Frontiers of Optoelectronics	ISSN：2095-2759 CN ：10-1029/TN	高等教育出版社，中国光学学会，华中科技大学
2	High Power Laser Science and Engineering	ISSN： 2095-4719 CN： 31-2078/O4	中国科学院上海光学精密机械研究所/中国光学学会
3	Journal of Semiconductors	ISSN：1674-4926 CN:11-5781/TN	中国科学院半导体研究所;中国电子学会
4	Matter and Radiation at Extremes	ISSN: 2468-2047 CN: 51-1768/O4	中国工程物理研究院
5	Radiation Detection Technology and Methods	ISSN:2509-9930 EISSN:2509-9949	中国科学院高能物理研究所
6	半导体技术	ISSN：1003-353X CN：13-1109/TN	中国电子科技集团公司电子第十三研究所
7	北京大学学报	ISSN：0479-8023 CN：11-2442/N	北京大学
8	波谱学杂志	ISSN：1000-4556 CN：42-1180/04	中科院武汉物理与数学研究所
9	传感器与微系统	ISSN：2096-2436 CN：23-1537/TN	中国电子科技集团公司第四十九研究所
10	低温物理学报	ISSN:1000-3258 CN: 34-1053/O4	中国科学技术大学
11	电子测量技术	ISSN:1002-7300 CN:11-2175/TN	北京电子控股有限责任公司，北京无线电技术研究所
12	电子测量与仪器学报	ISSN:1000-7105 CN:11-2488/TN	中国电子学会
13	电子技术应用	ISSN0258-7998 CN11-2305/TN	华北计算机系统工程研究所
14	电子学报	ISSN0372-2112 CN11-2087/TN	中国电子学会
15	电子与信息学报	ISSN1009-5896 CN11-4494/TN	中科院电子学研究所，国家自然科学基金委员会信息科学部
16	发光学报	ISSN :1000-7032 CN:22-1116/O4	中国物理学会发光分会，中国科学院长春光学精密机械与物理研究所
17	辐射防护	ISSN：1000-8187 CN：14-1143/TL	中国核学会辐射防护分会
18	辐射研究与辐射工艺学报	ISSN：1000-3436 CN:31-1258/TL	中国科学院上海应用物理研究所
19	复旦大学学报	ISSN：0427-7104 CN：31-1330/N	复旦大学
20	光电工程	ISSN：:1003-501X CN:51-1346/O4	中国科学院光电技术研究所，中国光学学会
21	光电子技术	ISSN：:1005-488X CN:32-1347/TN	信息产业部南京电子器件研究所

22	光散射学报	ISSN：:1004-5929 CN:51-1395/O4	中国物理学会光散射专业委员会、四川省物理学会
23	光学技术	ISSN：:1002-1582 CN:11-1879/O4	中国兵工学会、北京理工大学、中国北方光电工业总公司
24	光学精密工程	ISSN：22-1198/TH CN:1004-924X	中国科学院长春光学精密机械与物理研究所，中国仪器仪表学会
25	光学学报	ISSN：0253-2239 CN：31-1252/O4	中国光学学会，中科院上海光机所
26	光学与光电技术	ISSN：1672-3392 CN:42-1696/O3	华中光电技术研究所，武汉光电国家实验室，湖北省光学学会
27	光子学报	ISSN：:1004-4213 CN:61-1235/O4	中国科学院西安光学精密机械研究所、中国光学学会
28	核电子学与探测技术	ISSN:0258-0934 CN：11-2016/TL	中国核工业集团公司北京核仪器厂，中国核学会核电子学与探测技术分会
29	核技术	ISSN：0253-3219 CN：31-1342/TL	中国核学会
30	核科学与工程	ISSN：0258-0918 CN：11-1861/TL	中国核学会
31	红外技术	CN：53-1053/TN 1001-8891	昆明物理研究所;中国兵工学会夜视技术专业委员会
32	红外与毫米波学报	CN：31-1577/TN ISSN：1001-9014	中国光学学会，中科院上海技术物理所
33	红外与激光工程	ISSN：1007-2276 CN：12-1261/TN	中国航天科工集团公司第三研究院第八三五八研究所、中国光学工程学会
34	激光技术	ISSN：1001-3806 CN：51-1125/TN	西南技术物理研究所
35	激光生物学报	ISSN：1007-7146 CN：43-1264/Q	中国遗传学会
36	激光与光电子学进展	ISSN：1006-4125 CN：31-1690/TN	中科院上海光机所
37	激光与红外	ISSN：1001-5078 CN：11-2436/TN	华北光电技术研究所
38	激光杂志	ISSN：0253-2743 CN：50-1085/TN	重庆市光学机械研究所
39	计算物理	ISSN：1001-246X CN：11-2011/O4	中国核学会，北京应用物理与计算数学研究所
40	科学通报	ISSN：11-1784/N CN：0023-074X	中国科学院、国家自然科学基金委员会
41	空间科学学报	ISSN：0254-6124 CN：11-1783/V	中国空间科学学会、中科院国家空间科学中心
42	理论物理通讯（英文版）	ISSN:0253-6102 CN：11-2592/O3	中国物理学会，中科院物理研究所
43	量子电子学学报	ISSN:1007-5461 CN：34-1163/TN	中国光学学会基础光学专业委员会，中科院安徽光机所

44	量子光学学报	ISSN：1007-6654 CN：14-1187/O	量子光学专业委员会，山西省物理学会
45	南京大学学报	ISSN：0469-5097 CN：32-1169/N	南京大学
46	清华大学学报	ISSN：1000-0054 CN：11-2223/N	清华大学
47	数据采集与处理	ISSN:1004-9037 CN:32-1367/TN	中国电子学会等
48	数学物理学报	ISSN: 1003-3998 CN: 42-1226/O	中国科学院武汉物理与数学研究所
49	微电子学	ISSN: 1004-3365 CN: 50-1090/TN	中国电子科技集团公司第二十四研究所
50	物理	ISSN：0379-4148 CN：11-1957/O4	中国物理学会，中科院物理研究所
51	物理化学学报	ISSN：1000-6818 CN：11-1892/O6	中国化学会，北京大学
52	物理学报	ISSN：1000-3290 CN：11-1958/O4	中国物理学会，中科院物理研究所
53	物理学进展	ISSN：1000-0542 CN：32-1127/O4	中国物理学会，南京大学
54	系统工程与电子技术	ISSN:1001-506X CN:11-2422/TN	中国航天科工防御技术研究院，中国宇航学会，中国系统工程学会
55	小型微型计算机系统	ISSN:1000-1220 CN：21-1106/TP	中科院沈阳计算技术研究所
56	信号处理	ISSN:1003-0530 CN:11-2406/TN	中国电子学会
57	信息技术与网络安全	ISSN:2096-5133 CN：10-1543/TP	华北计算机系统工程研究所
58	信息与控制	ISSN:1002-0411 CN：21-1138/TP	中国自动化学会，中科院沈阳自动化研究所
59	压电与声光	ISSN：1004-2474 CN：:50-1091/TN	中国电子科技集团公司第二十六研究所
60	应用光学	ISSN：1002-2082 CN：61-1171/O4	中国兵工学会、中国兵器工业第二〇五研究所
61	应用激光	ISSN：1000-372X CN：31-1375/T	上海市激光研究所
62	原子核物理评论	ISSN：1007-4627 CN：62-1131/O4	中国核物理学会，中科院近代物理研究所
63	原子能科学技术	ISSN：1000-6931 CN：11-2044/TL	中国原子能科学研究院
64	原子与分子物理学报	ISSN：1000-0364 CN：51-1199/O4	中国物理学会原子分子专业委员会，四川大学
65	中国激光	ISSN：0258-7025 CN：31-1339/TN	中国光学学会，中科院上海光机所
66	中国科学(各辑)	ISSN:1674-7267 CN：11-5846/TP	中国科学院，国家自然科学基金委员会

67	中国科学基金	ISSN:1000-8217 CN：11-1730/N	国家自然科学基金委
68	中国科学技术大学学报	ISSN：0253-2778 CN：34-1054/N	中国科技大学
69	中国科学院大学学报	ISSN2095-6134 CN：10-1131/N	中国科学院大学
70	中国科学院院刊	ISSN：1000-3045 CN:11-1806/N	中国科学院
71	中国空间科学技术	ISSN：1000-758X CN：11-1859/V	中国空间技术研究院
72	中国生物医学工程学报	ISSN：0258-8021 CN：11-2057/R	中国生物医学工程学会
73	中国物理(各辑)	ISSN：1674-1056 CN：11-5639/O4	中国物理学会，中科院物理研究所
74	中国医疗器械杂志	ISSN：1671-7104 CN：31-1319/R	国家药品监督局医疗器械信息中心站
75	中华超声影像学杂志	ISSN：1004-4477 CN：13-1148/R	中华医学会
76	中华放射学杂志	ISSN：1005-1201 CN：11-2149/R	中华医学会放射学分会
77	中华放射医学与防护杂志	ISSN：0254-5098 CN：11-2271/R	中华医学会
78	中华放射肿瘤学杂志	ISSN:1004-4221 CN:11-3030/R	中华医学会放射肿瘤学分会
79	自然科学进展	ISSN：1002-008X CN：11-3852/N	国家自然科学基金委

This English version of *Criteria for Award of Postgraduate Degrees of University of Science and Technology of China (USTC)* is for reference only, subject to the 2020 Chinese version.