

Criteria for Award of Postgraduate Degrees at the School of Astronomy and Space Science

Using the descriptors for qualifications at Master's and doctoral level developed by the Ministry of Education, the Ministry of Science and Technology of China and the University of Science and Technology of China (USTC) (Jiaokeji [2020] No. 2) as part of the framework, the School of Astronomy & Space Science has developed the following explicit, yet generic criteria for the award of Master's and doctoral degrees:

I.Requirements for cultivation of Postgraduates in Astronomy

1.Academic Exchange Ability

Students awarded a master's degree should attend at least 10 academic lectures including academic activities of research groups, cross-groups, USTC's, PMO's and thematic, as well as regional and national academic conferences, among others, and actively participate in engineering and social practice activities.

Students awarded a doctoral degree should attend at least one national (or international) academic conference. Prior to graduation, he/she should attend at least one academic forum or annual academic conference held by USTC (or the School) for doctoral candidates, and have his/her paper presented in the event in the form of oral presentation or poster, or undertake at least one teaching assistantship set up by USTC or the School to gain relevant teaching experience.

2.Curriculum

All postgraduate applicants must meet the course requirements of the xxx

3.Conversion of Master's to Doctoral Study

Before starting doctoral study, students awarded a master's degree should pass the doctoral qualifying examination (assessment) organized by the relevant authority. The specific requirements are formulated independently by the relevant authority in accordance with the rules of USTC and the specific circumstances.

4.Evaluation of Dissertation Prospectus

Throughout the dissertation research phase, a postgraduate should demonstrate his/her dissertation topic and research approach as well as conduct a dissertation prospectus (which counts for 2 credits). At least one year before graduation, a review committee organized by supervisor consisting of experts of the discipline and related disciplines (doctoral candidates: at least three experts with a senior professional title; master's candidates: at least three experts with an associate senior professional title or above) should be formed to evaluate the dissertation prospectus. The doctoral candidate shall make an oral presentation of at least 20 minutes and the master's candidate, 15 minutes. The expert committee, by defending, shall

examine and grade the student and vote to decide whether he/she passes.

5. Duration of Program

Students in a master's program are expected to spend 2-3 years of study, with a minimum of two years and a maximum of five years. Students admitted to a doctoral program will normally be expected to spend 3-4 years of study, with a minimum of two years and a maximum of eight years. Integrated M.S./ Ph.D. Program (those wishing to advance to a doctoral program) generally takes five to six years, with a minimum of four years and a maximum of eight years.

II. Dissertation and Related Innovative Achievements

1. The dissertation is the primary source material for degree application and for USTC to evaluate the application. The innovative achievements obtained throughout the dissertation research phase shall be completed independently by the candidate applying for the degree during his/her program, and presented in the dissertation systematically and completely.

2. The research achievements presented in an academic doctoral dissertation shall be innovative and of a high academic level in the discipline; the research achievements presented in a professional doctoral dissertation shall be innovative and of excellent practicality in the field. The research achievements presented in an academic master's dissertation shall be advanced and of good academic level in the discipline; the research achievements presented in a professional master's dissertation shall be advanced and of good practicality in the field.

3. A postgraduate may present his or her relevant innovative achievements in the form of academic journal papers, academic conference papers, academic monographs, invention patents, research achievement reports, industry standards, scientific research awards or others (hereinafter collectively referred to as "relevant academic achievements"). In principle, an applicant engaged in basic scientific research shall, as the first author, publish a peer-reviewed high-level research paper as a representative achievement, and a research paper, in principle, can only be used as a representative achievement for the application of a degree by one candidate. The relevant academic achievements can be used as an important reference for evaluating the level of the dissertation.

4. The relevant academic achievements a candidate uses to apply for the degree shall have the training institution as the first signed institution and the School of Astronomy and Space Sciences, USTC as the second signed institution.

III. Criteria for Award of Postgraduate Degrees in Astronomy

1. Students awarded a doctoral degree need to meet one of the following prerequisites:

A candidate engaged in basic scientific research: as the first author or the first corresponding author, has had innovative research paper that is related to the dissertation and represents an important breakthrough or systematic progress published or accepted by a foreign or domestic mainstream academic journal (see Annex 1);

A candidate engaged in technology research: as the first author, has had a conference paper admitted by an international mainstream academic journal (see Annex 1) or an important intellectual property right such as an invention patent and a software copyright granted as first inventor, or have made a technical achievement proven by its user (enterprise or field) as

first contributor;

The candidate has participated in a major national scientific mission or project, a major national defense scientific research mission or major international scientific collaboration, made important scientific or technical contribution: as Primary Author, write the work report recognized by the relevant authority (or the chief scientist or head of the expert group);

A scientific research achievement related to the dissertation that has won a provincial or ministerial level (above) scientific research achievement award (State level: ranked among top five; provincial or ministerial-level: ranked among top three);

2. Students awarded a master's degree need to meet one of the following prerequisites:

A candidate engaged in basic scientific research: as the first author (except for the Supervisor's signature), have research paper related to the dissertation published or accepted in a foreign or domestic mainstream academic journal (see Annexes 1 and 2);

A candidate engaged in technology research: have made certain technological innovations in an important project or mission, and have published research paper in a foreign or domestic professional technical journal (see Annexes 1 and 2) as the first author (except for the Supervisor's signature), or have an intellectual property right such as invention patent or software copyright granted as first inventor (except for the Supervisor's signature);

A candidate has completed an important experiment or observation or an analysis technical report of an important experiment or observation result as first achiever (except for the Supervisor's signature) and be approved by at least three members of the degree subcommittee in a related field;

A scientific research achievement related to the dissertation that has won a provincial or ministerial level (above) scientific research achievement award (State level: ranked among top three; provincial or ministerial-level: ranked among top five).

3. Other Special Cases

The Supervisor shall submit a written application and present the reasons at the meeting of the degree subcommittee where a secret ballot will be conducted (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 to apply for the degree. And then be submitted to the USTC Degree Committee for approval.

IV. This revision of the criteria for award of a 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.

V. This revision of the criteria for award of a degree shall take effect from January 2022 in accordance with the Notice on the 2020 Edition of Criteria for Award of Degrees issued by USTC Degree Management Office.

Catalog of International Journals

序号	期刊名称	ISSN
1	ACTA Astronomica	0001-5237
2	Advances in Astronomy	1687-7969
3	Advances in Space Research	0273-1177
4	Annales Geophysicae	0992-7689
5	Annals of Physics	0003-4916
6	Applied Mathematics and Mechanics	0253-4827
7	Applied Optics	0003-6935
8	Applied Physics Letters	0003-6951
9	Astrobiology	1531-1074
10	Astronomical Journal	0004-6256
11	Astronomische Nachrichten	0004-6337
12	Astronomy & Astrophysics	0004-6361
13	Astronomy & Geophysics	1366-8781
14	Astronomy & Computing	2213-1337
15	Astronomy Letters-A Journal of Astronomy and Space Astrophysics	1063-7737
16	Astronomy Reports	1063-7729
17	Astroparticle Physics	0927-6505
18	Astrophysical Bulletin	1990-3413
19	Astrophysical Journal	0004-637X
20	Astrophysical Journal Letters	2041-8205
21	Astrophysical Journal Supplement Series	0067-0049
22	Astrophysics	0571-7256
23	Astrophysics and Space Science	0004-640X
24	Celestial Mechanics & Dynamical Astronomy	0923-2958
25	Chinese Physics C	1674-1137
26	Chinese Physics Letters	0256-307X
27	Classical and Quantum Gravity	0264-9381
28	Communications in Theoretical Physics	0253-6102
29	Cosmic Research	0010-9525
30	Earth and Planetary Science Letters	0012-821X
31	Earth and Space Science	2333-5084
32	Earth Moon and Planets	0167-9295

序号	期刊名称	ISSN
33	Experimental Astronomy	0922-6435
34	Galaxy	2278-9529
35	General Relativity and Gravitation	0001-7701
36	Geochimica et Cosmochimica Acta	0016-7037
37	Geophysical and Astrophysical Fluid Dynamics	0309-1929
38	Geophysical Research Letters	0094-8276
39	Gravitation & Cosmology	0202-2893
40	ICARUS	0019-1035
41	IEEE Microwave and Wireless Components Letters	1558-1764
42	IEEE Transactions on Applied Superconductivity	1558-2515
43	IEEE Transactions on Microwave Theory and Techniques	0018-9480
44	IEEE Transactions on Nuclear Science	0018-9499
45	IEEE Transactions on Terahertz Science & Technology	2156-342X
46	International Journal of Astrobiology	1473-5504
47	International Journal of Modern Physics D	0218-2718
48	Journal of Applied Physics	0021-8979
49	Journal of Astrophysics and Astronomy	0250-6335
50	Journal of Cosmology and Astroparticle Physics	1475-7516
51	Journal of Geophysical Research	8755-8556
52	Journal of Geophysical Research-Planets	2169-9100
53	Journal of Geophysical Research-Space Physics	2169-9380
54	Journal of High Energy Astrophysics	2214-4048
55	Journal of Low Temperature Physics	0022-2291
56	Journal of Plasma Physics	0022-3778
57	Journal of Space Weather and Space Climate	2115-7251
58	Journal of the Korean Astronomical Society	1225-4614
59	Kinematics and Physics of Celestial Bodies	0884-5913
60	Life Sciences in Space Research	2214-5524
61	Light: Science and Applications	2095-5545
62	Meteoritics & Planetary Science	1086-9379
63	Modern Physics Letters A	0217-7323
64	Monthly Notices of the Royal Astronomical Society	0035-8711
65	Nature	1476-4687
66	Nature Astronomy	2397-3366
67	Nature Communication	2041-1723

序号	期刊名称	ISSN
68	Nature Physics	1745-2473
69	New Astronomy	1384-1076
70	Nonlinear Processes in Geophysics	1023-5809
71	Optical Engineering	0091-3286
72	Optics Express	1094-4087
73	Optics Letters	0146-9592
74	Physics Letters B	0370-2693
75	Physics of Plasmas	1070-664X
76	Physical Review D	1550-7998
77	Physical Review E	2470-0045
78	Physical Review Letters	0031-9007
79	Physics of the Dark Universe	2212-6864
80	Planetary and Space Science	0032-0633
81	Plasma Physics and Controlled Fusion	0741-3335
82	Plasma Science & Technology	1009-0630
83	Publications of the Astronomical Society of Australia	1323-3580
84	Publications of the Astronomical Society of Japan	0004-6264
85	Publication of the Astronomical Society of the Pacific	0004-6280
86	Radio Science	0048-6604
87	Research in Astronomy and Astrophysics	1674-4527
88	Review of Scientific Instruments	0034-6748
89	Science	0036-8075
90	Science Advances	2375-2548
91	Science Bulletin	2095-9273
92	Science China Physics, Mechanics & Astronomy	1869-1927
93	Solar Physics	0038-0938
94	Solar System Research	0038-0946
95	Space Weather – The International Journal of Research and Applications	1542-7390
96	SPIE (The International Society for Optical Engineering) Proceedings	1996-756X
97	Superconductor Science and Technology	0953-2048
98	The European Physical Journal C	1434-6044
99	The European Physical Journal Plus	2190-5444
100	Universe	2218-1997

Catalog of Domestic Journals

序号	刊 名	主 办 单 位
1	《天文学报》	中国天文学会、中国科学院紫金山天文台
2	《中国科学（各辑）》	中国科学院、国家自然科学基金委员会
3	《空间科学学报》	中国科学院国家空间科学中心、中国空间科学学会
4	《核技术》	中国科学院上海应用物理研究所
5	《科学通报》	中国科学院、国家自然科学基金委员会
6	《计算机科学》	国家科技部西南信息中心
7	《计算机仿真》	中国航天科工集团公司第十七研究所
8	《沉积学报》	中国矿物岩石地球化学学会沉积学专业委员会、中国地质学会沉积地质专业委员会
9	《矿物岩石地球化学通报》	中国矿物岩石地球化学学会、中国科学院地球化学研究所
10	《光学学报》	中国科学院上海光学精密机械研究所、中国光学学会
11	《光学技术》	北京兵工学会、北京理工大学、中国北方光电工业总公司
12	《应用光学》	西安应用光学研究所
13	《量子电子学报》	中国光学学会基础光学专业委员会、中国科学院安徽光学精密机械研究所
14	《红外技术》	昆明物理研究所、中国兵工学会夜视技术专业委员会
15	《激光技术》	西南技术物理研究所
16	《光学精密工程》	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
17	《机械研究与应用》	甘肃省机械科学研究院
18	《机械设计与制造工程》	中国生产力促进中心协会
19	《振动与冲击》	中国振动工程学会、上海交通大学、上海市振动工程学会

序号	刊 名	主 办 单 位
20	《机电工程》	浙江大学、浙江省机电集团有限公司
21	《传感器与微系统》	中国电子科技集团公司主管、中国电子科技集团公司第四十九研究所
22	《制造业自动化》	北京机械工业自动化研究所
23	《传感技术学报》	中国微米纳米技术学会、东南大学
24	《微计算机信息》	中国计算机用户协会
25	《光电工程》	中国科学院光电技术研究所、中国光学学会
26	《中国激光》	中国科学院上海光学精密机械研究所、中国光学学会
27	《红外与激光工程》	天津津航技术物理研究所
28	《中国科学技术大学学报》	中国科学技术大学

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