By-laws for the organization of the LXCat Team 2 March, 2022

The LXCat platform (www.lxcat.net), initiated as a community-wide project in 2010, is widely recognized as an important resource for the Low Temperature Plasma (LTP) community. The development of the platform has depended until now on volunteers from the LTP community and the organization has been informal. Given the increasing size of the user community and number of people contributing to the development of LXCat, it is now important to formalize the organization of the LXCat Team to assure its efficient operation and to enable the long-term viability of the project.

There are three Organizational Units – the Outreach Team, the Tech Team, and the Data for Modeling Plasmas (DMP) association – which perform the administrative tasks underlying the LXCat platform. These Units, together with the Contributors, who share data via LXCat with the scientific community, are hereafter referred to as the LXCat Team. This term is useful for recognizing the participants of the LXCat project. The Steering Committee, newly established with the adoption of these by-laws, is the structure through which the Organization Units interact. The roles and responsibilities of each of these components of the LXCat team are described below.

Article 1: Aims and scope of the LXCat platform

The LXCat platform is an electronic means for curating data needed for investigations of LTPs. The scope is presently limited to data regarding the electron and ion components of LTPs but may be extended as opportunities arise. These data are accessible through the open-access LXCat website; there are no user fees, and no sign-up is required. Also available through the LXCat website are relevant publications and conference presentations co-authored by members of the LXCat team, unpublished notes related to the data, links to freeware available in the LTP community, and other material of general interest. The LXCat platform makes use of tools and data formats developed by the LXCat team for handling the data while maintaining the integrity of the datasets as provided by the contributors.

Article 2: The Contributors

LXCat is dependent on the Contributors who freely share data and other items of general interest with the scientific community through the LXCat website. The data are generated by the Contributors themselves and/or are compilations of data derived from the scientific literature. The available data are organized into databases, each indicated by the Contributor's chosen title.

The Contributors are responsible for the contents and the maintenance of their database using the tools developed by the LXCat team. The LXCat team assumes no responsibility for the quality of the data themselves. The Contributors retain the full intellectual property related to their own work assembling and documenting data in their own database. The databases are dynamic, and thus contributors can make changes whenever they like. For people wishing to contribute small amounts of data, a "Community" database has been set up and is maintained by the Tech Team and the Outreach Team.

The Contributors are responsible for ensuring that proper references to the scientific literature are included in the information available in their database on the LXCat website.

Article 3: The Organizational Units

The administration of the LXCat project is assured by the three Organizational Units described below.

3a. The Outreach Team

The Outreach Team is responsible for engaging with new contributors from the scientific community as well as for maintaining contact with all the LXCat Contributors. The Outreach Team coordinates and follows up on requests from contributors and/or users. It acts as a first responder and seeks support from members of the other Units whenever necessary. The Outreach Team is further responsible for organizing presentations about LXCat at conferences and workshops; for organizing an annual event where users, Contributors, and the LXCat Organization Units all have an opportunity to interact; and for editing a newsletter. Furthermore, the Outreach Team provides some support for users and Contributors in the form of on-line tutorials or instructional documents. In executing these tasks, the Outreach Team shall work in close collaboration other members of the LXCat Team.

The Outreach Team consists of nominally 3 to 5 active members, with one person acting as the coordinator and another person as Back-up Coordinator. The Coordinator is responsible for keeping all team members updated in a timely way on the team's activities.

3b. The Tech Team

The Tech Team is responsible for maintaining and improving/renewing the LXCat project infrastructure (website and database structure). While final decisions about priorities and actions regarding the LXCat infrastructure remain the responsibility of the Tech Team, this Team shall be responsive to suggestions and requests from the Contributors, the Outreach Team, and the Steering Committee.

The Tech Team consists of nominally 3 to 5 active members competent in aspects of web site development and database management, with one person acting as the Coordinator, and another person as Back-up Coordinator. The Coordinator is responsible for setting up databases for new Contributors after having ascertained the compatibility of the proposed data with the LXCat platform and for authorizing changes in the internal website and database scripts. The Coordinator's additional tasks are: (1) organization of regular monthly meetings of the Tech Team (other members of the LXCat Team may also be invited) and (2) maintenance of a list of accounts and passwords for the LXCat servers and any other accounts related to the LXCat platform (e-mail, cloud services). The latter information is to be shared at regular intervals with the president of the DMP association and the Back-up Coordinator of the Tech Team.

3c. Designation of new Tech Team and Outreach Team Coordinators and/or members

When the Coordinator or Back-up Coordinator of the Outreach Team or of the Tech Team are no longer able to fulfill the role, new names are proposed by the respective teams for validation by the Steering Committee.

The LXCat Team shall make every effort to encourage and to include participation by new people interested in the project. New Team members may be recruited for specific and punctual tasks or

to replace retiring members. Decisions about new members are made by consensus among the members of each Team, in coordination with the Steering Committee.

There are no formal commitments regarding length of participation in these Teams, and people can contribute simultaneously to both Teams. Each of the Team Coordinators, with the approval of the Steering Committee, reserves the right to distinguish between "active" members and "previous" members in communicating with the LTP community. "Active" members are defined as those who are presently participating in LXCat team meetings and regularly volunteering time for specific tasks. The Team Coordinators shall keep an updated list of "active" and "previous" members on the LXCat website.

3d. Data for Modeling Plasmas (DMP) Association

The Data for Modeling Plasmas Association (assoc.lxcat.net) was created in July 2015 according to French laws governing non-profit organizations. The formal statutes of the DMP state its missions as "to facilitate the exchange of data and numerical tools for modeling the physics and chemistry of plasmas."

The DMP is thus the legal structure through which the LTP community and relevant organizations can contribute financially to the LXCat project and other data related activities that fit within its mission. Furthermore, DMP association is the entity authorized to sign agreements with third parties. For example, the DMP and the individual contributors can together co-sign agreements (including Memoranda of Understanding) regarding rights for redistribution of specific data available on LXCat.

Resources of the DMP association may include annual membership dues, public or private donations and grants, income from services rendered by the association, and other income authorized by French law governing non-profit organizations. The expenditure of DMP association funds for routine maintenance of the LXCat platform is decided by the board of the DMP association with *a posteriori* approval from the DMP association members and the LXCat Steering Committee. All other LXCat related expenditures require *a priori* approval by the Steering Committee.

Article 4: The Steering Committee

The roles of the Steering Committee are to oversee the coordination among the Organization Units, to provide the long-term vision needed to assure the viability of the LXCat project, and to adjudicate problems as they arise.

The specific tasks of the Steering committee include, but are not limited to, the following:

- to provide a forum for internal discussions of issues and opportunities regarding the future of LXCat and to take the necessary decisions,
- to organize an annual review meeting where presentations by the three Organization Units shall be heard,
- to produce, every 2 years, a roadmap for the LXCat project based on the annual reviews and the subsequent discussions,
- to approve the expenditure of funds from the DMP, a posteriori for routine maintenance for the LXCat project, and a priori for other expenditures related to the LXCat project,
- to confirm or to replace the Coordinators or the Back-up Coordinators of the Outreach Team and the Tech Team, and to validate proposals for new members of the Outreach or Tech team,

- to mediate conflicts as they may arise among members of the LXCat team.

The Steering Committee shall consist of the following members:

- the Coordinator and the Back-up Coordinator of the Outreach Team,
- the Coordinator and the Back-up Coordinator of the Tech Team,
- 2 members of the DMP association, to be named by its president,
- 1 person, from outside the Outreach and Tech teams, elected to act as Chair of the Steering Committee.

The Chair of the first steering committee shall be elected by the other members of the Steering Committee from a list of candidates proposed by the Outreach Team, the Tech Team, and the DMP association. The tenure of the chair is 3 years. Candidates for subsequent elections may be proposed by any of the members of the Steering Committee, and the election shall be organized by the outgoing Chair no less than 4 months before the end of his term.

The Chair of the Steering Committee shall organize a meeting of its members at least once every four months. To address specific issues, the chair may call additional meetings at any time. Meetings shall also be called when at least 3 members of the Steering Committee make the request. Members shall be notified of the meeting date and time at least 2 weeks in advance and the notification shall include an agenda for the meeting. In the case that texts or documents are needed to support a decision of the steering committee requiring a vote, the relevant documents shall be made available to all the Steering Committee members in electronic format at least 3 days in advance.

Two-thirds of the members of the steering committee (e.g., 5 people) *including* those voting by proxy must participate in a meeting of the Steering Committee for the decisions made during the meeting, either by vote or by consensus, to be binding. Steering committee members may accept proxy votes from only one individual. All votes on issues involving names of people shall be anonymous. If the Chair is unavoidably absent, the President of the DMP shall preside over the meeting.

The Chair shall appoint one person present at the start of each assembly to act as the meeting secretary. The meeting secretary shall prepare and distribute the minutes of the meeting to all members within the 15 days following the meeting. The minutes shall include mention of all decisions taken by the assembly (including the tabulation of votes) and all important points arising during the discussions, including in particular those needing follow-up at a later stage. A vote to approve/amend the minutes of the previous meeting shall be the first order of business at each meeting.

Article 5: Third-party grants and intellectual property

Third-party funding can be sought to address specific tasks related to ongoing LXCat activities or to further its development. Authors of proposals to be submitted to third-parties for funding for work contributing to the LXCat project should address a notice of intent to the Chair of the Steering Committee. A formal letter of support from the Chair of the Steering Committee will be provided to accompany the proposal if the Steering Committee decides that the proposed activities fit within of

the scope of the LXCat project and its Roadmap. The decision to approve such a proposal shall be made by a vote in a meeting of the Steering Committee where stakeholders are neither present nor eligible to vote. The Steering Committee shall provide a response within 4 weeks of such a notification.

In the case of contributions with an outcome that could generate intellectual property, a copyright transfer agreement for all items pertaining directly to the LXCat project is to be signed with the DMP association at the start of any project funded by third-parties. If such a copyright transfer agreement is deemed incompatible with the third-party funding, a free, unlimited, and non-exclusive license for all items pertaining directly to the LXCat project must be assigned to the DMP at the start of the project. It is understood that any tools or data format developed within a project that received official support by LXCat for handling or manipulating LXCat data shall be made accessible under an Open Access license no later than at the end of the project duration.

In the case of a project directly supported by the DMP association funds, it is understood that the DMP association retains the exclusive right of exploitation of any of the resources generated during the project.

Article 6: Procedures for adopting and changing the by-laws

The founding by-laws shall be circulated to the active members of the Outreach and Tech teams and to the members of the DMP for comments. When these three units individually approve the by-laws, they shall be considered as adopted.

Suggestions for changes in the by-laws can be made by the Chair of the Steering Committee or any member of the Organizational Units. Suggestions should be forwarded to the Chair of the Steering Committee who will circulate the amendment for comments and discussion. For changes to become effective they must be approved by 2/3 of the members (e.g., 5 members) of the Steering Committee in a vote organized by the Chair within 4 months of receipt of the original suggestion.