SURFEX Steering Committee

Terms of reference

SURFEX (Surface externalisée) is a numerical code simulating the evolution of surface variables and the corresponding atmosphere/surface fluxes. It can be used either “off-line” (i.e. forced by observed, analysed or ideal data, without feedback on the atmosphere) or “in-line” (i.e. as a module coupled to other computations within an atmospheric model). It contains various scientific submodels and options within the four main surface types (bare soil/vegetation, urbanized areas, inland water and sea/ocean), which allows easy implementation and testing of scientific improvements of these models.

The SURFEX code is maintained by CNRM/GMME and is available to the ACCORD and Meso-NH consortia. It is also accessible to the scientific community for research purposes (the licence is currently under discussion at Météo-France and may evolve towards a LGPL type).

SURFEX is increasingly used by the scientific community, both as a standalone model or within atmospheric and Earth-system models. It is therefore necessary to create a governance mechanism to discuss future scientific and technical evolutions of SURFEX between the users, resolve potential conflicts and define priorities. A SURFEX Steering Committee is created to this effect.

The SURFEX SC agrees:

- the priorities for the scientific evolution of the code;
- the priorities for the technical evolution of the code, especially in view of adaptation to (massively) parallel machines, and inclusion into the atmospheric models of the ARPEGE/IFS/ACCORD family and Meso-NH;
- the list of new submodels and modifications to the existing submodels, provided by SURFEX users, that will enter in the SURFEX code repository and become part of the mainstream code; similarly, the list of physiography datasets allowed;
- an outline of the major maintenance steps that will take place within about the upcoming year.

The SURFEX SC is composed of one chairperson and six members representing the following categories of users: CNRM/GMME (1), CNRM/GMGEC (1), CNRM/GMAP (1), CNRM/CEN (1), Meso-NH (1), ACCORD (1). The composition of this group may evolve in the future to reflect the actual use of the code.

The current chairperson of the SURFEX SC is Patrick Le Moigne (CNRM).

The SURFEX team members participate to the committee, and members of the SURFEX SC can invite technical experts from their user group as needed to support discussions of the committee. These experts will not participate in decisions.

Decisions of the committee are taken by consensus whenever possible. If a vote is needed, decisions are taken by simple majority.

The SURFEX SC will meet at least once per year and more if the chairperson considers it necessary.