Note on the collaboration between
NA61/SHINE at the CERN SPS and
T2K at JPARC experiments

by the T2K and NA61/SHINE Collaborations

CERN and J-PARC, April 7, 2009

1. Introduction. The physics program of NA61/SHINE [1] at the CERN SPS includes measurements for the T2K experiment at the JPARC [2]. These measurements are necessary for a precise description of the initial neutrino flux and should result in a significant reduction of systematic errors of T2K final results on neutrino cross-sections and oscillation parameters. In order to reach this goal a collaboration between NA61/SHINE and T2K experts is necessary. The NA61 collaborators can join the T2K experiment by the contribution of extending knowledge on hadron production, which is important for T2K. This document presents the structure of this inter-experimental collaboration.

2. Joint Meetings. The exchange of internal information and collaboration between the experts of NA61/SHINE and T2K takes place at joint meetings. The joint meetings are organized regularly and chaired by conveners of the T2K Beam and NA61-T2K working groups. The conveners invite selected members of the T2K Beam and NA61-T2K working groups to participate in the joint meetings. The joint meetings are open for the officers (spokespersons and chairmen of the boards and the working groups) of both collaborations. Internal T2K and NA61/SHINE data and information presented at the joint meetings is only for internal use of the T2K Beam and NA61-T2K working groups. The schematics of the collaboration between T2K and NA61/SHINE is shown in Fig. 1.

3. NA61/SHINE and T2K presentations and data. The NA61/SHINE presentations at the T2K meetings as well as the T2K presentations at the NA61/SHINE meetings other than the joint meetings are subject to restrictions for external presentations defined by the bylaws of the respective collaborations.
Only NA61/SHINE and T2K data and/or information which is officially released by the corresponding collaboration as preliminary or final can be used outside the T2K Beam and NA61-T2K working groups. The references to the documents in which the data and/or information is presented should be specified.

4. T2K Beam working group. Responsibilities of the T2K Beam working group relevant for this document are:
-explanation of the T2K needs concerning data on hadron production,
-discussion of the NA61 data taking and the NA61 analysis for T2K with the NA61-T2K working group.

5. NA61-T2K working group. Responsibilities of the NA61-T2K working group relevant for this document are:
-planning of the NA61 data taking for T2K in consultation with the T2K Beam working group,
-analysis of the NA61 data taken for T2K,
-discussion of the analysis details and results for T2K with the T2K Beam group.

FIG. 1: Schematics of the collaboration between T2K and NA61/SHINE, for details see text.