

VI. DISCUSSION

Although not a new research topic in characterizing the uncertainty in IF processes [32], the evaluation of IF systems presents various challenges due to the complexity of fusion systems and the sheer number of variables influencing their performance. [33] In LLIF systems, the impact of uncertainty representation is well understood, and generally quantifiable. However, at higher levels of IF the approach chosen for representing uncertainty has an overall impact on system performance that is hard to quantify or even to assess from a qualitative viewpoint [32, 34]. This issue was recognized by the Fusion community when creating the ETURWG, with the main goal of providing an unbiased framework for evaluating the impact of uncertainty in IF systems. From the beginning, it became clear that the various approaches and technical considerations demand a common understanding that is only achievable by a formal specification of the semantics involved. As a result, the group developed the URREF ontology presented in this paper. The ontology is now being employed to support the development of more specific requirements to evaluate a set of use cases and associated data sets designed by the group and accessible through our webpage [<http://eturwg.c4i.gmu.edu>]. Although it is clear that the URREF ontology is not a definitive reference for these types of activities, its use has proven to be a major asset in developing a common framework. We invite all interested practitioners, developers, and researchers to participate in the ETURWG.

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