

Representations of knowledge in living systematic reviews: ionization cross sections by electrons case study

Thursday, March 20, 2025 4:40 PM (20 minutes)

A living systematic review is an approach that provides up-to-date evidence for a given research topic. It is extensively used in health domains due to its potential to enhance the efficiency of conventional systematic reviews. Furthermore, this approach is particularly suitable when the literature requires frequent updates, and the research needs continuous monitoring. Artificial Intelligence technologies have been developed to graphically represent literature knowledge to gain a more comprehensive understanding of the major research trends.

In this study, we propose different graphical representations of literature knowledge for a living systematic review that we have implemented in the context of the ionization cross-sections by electrons case study. Starting with a well-known literature that has been regularly updated over time, we have applied methods such as e.g. knowledge graphs to represent learning and detect structural temporal relations between entities. The findings have been assessed by experts in the field to identify the most suitable solution for our research objectives.

Primary authors: RONCHIERI, Elisabetta (INFN CNAF); Dr CANAPARO, Marco (INFN CNAF); Dr ZURLO, Giovanni (INFN CNAF); Dr PIA, Maria Grazia (INFN Genova); Dr COSTANTINI, Alessandro (INFN CNAF)

Presenter: RONCHIERI, Elisabetta (INFN CNAF)

Session Classification: Artificial Intelligence (AI) - II

Track Classification: Track 10: Artificial Intelligence (AI)