**Introduction**

The literature review serves to situate this research paper within the broader field of magnetic particle accelerators. It introduces relevant theories, concepts, and methodologies in order to form a foundation on which this research paper can be formulated.

This literature review begins with a brief overview of particle accelerators, highlighting their broad purpose and significance and detailing their applications in various fields of research. The basic principles of electromagnetic propulsion and control and detection systems are then outlined, followed by a brief exploration into the various types of particle accelerators. Lastly, material interaction and dynamics are reviewed, with attention given to the impact of friction and material selection on particle motion.

This review positions the TBMPA within the broader field of particle acceleration, highlighting its significance in educational and small-scale research contexts. The structure of this literature review can be seen in the figure below.