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Sommario/riassunto	Tribology has been and continues to be one of the most relevant fields, being present in almost all aspects of our lives. The understanding of tribology provides us with solutions for future technical challenges. At the root of all advances made so far are multitudes of precise experiments and an increasing number of advanced computer simulations across different scales and multiple physical disciplines. Based upon this sound and data-rich foundation, advanced data handling, analysis and learning methods can be developed and employed to expand existing knowledge. Therefore, modern machine learning (ML) or artificial intelligence (AI) methods provide opportunities to explore the complex processes in tribological systems and to classify or quantify their behavior in an efficient or even real-time way. Thus, their potential also goes beyond purely academic aspects into actual industrial applications. To help pave the way, this article collection aimed to present the latest research on ML or AI approaches for solving tribology-related issues generating true added value beyond just buzzwords. In this sense, this Special Issue can support researchers in identifying initial selections and best practice solutions for ML in tribology.