# LINKAGE: QUESTIONS AND APPLICATIONS

PAOLO MANTERO

ABSTRACT. Linkage (also known as liaison) is a theory whose roots go back to the 19$^{\text{th}}$ century when it was (already) successfully used to classify space curves by Halphen, Noether and, later, by many other mathematicians, including Cayley, Macaulay, Severi, Apery, Gaeta.

The 1974 ground-breaking paper of Peskine and Szpiro provided a more modern and general version of linkage and, since then, linkage has been an active area of research.

In this talk, we will define linkage, provide its geometric motivations, give concrete examples, examine its properties, analyze some natural questions and conclude with a couple of simple but useful applications of linkage to apparently unrelated problems.