

# The Central Role of Database Technology in Astronomical Archives

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The common modus operandi in astrophysical research is to recycle knowledge already acquired and shared within a single team. Too little attention is given to the discovery of new technologies to better fulfill project specifications and requirements unless a technological limit is reached during any testing use-case.

Although the Database Management System (DBMS) is the backbone on which astronomical archives are based, the choice of the best suited DB for scientists' needs often comes up against the need to put into operation a testing prototypes, so the search for an improved technology is simply bypassed in favor of a solution already known and mastered.

In this talk we will try to make a general excursus on different kinds of DBMS, related tool and show possible approaches to consciously make the best technology choice for the scientific project, or in case, adopt a new database paradigm called "Polyglot Persistence", where different DB solutions are joined together within a common archive ecosystem. The Polyglot Persistence focus on atomic services identified by data providers and data consumer and build the service adaptively to match the data management and access requirements.

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