The universal properties that lie behind the objects.
Martín Szyld

During this talk, we'll see how some usual basic constructions (e.g. free objects, quotients, products, and many more) that one can encounter in multiple areas of mathematics are actually different instances of the same concept. Category theory is the language in which this concept can be precisely formulated, for example as a universal property. Any universal property actually defines an object, so in a sense comes before the actual construction. This is a paradigm shift that has proven to be extremely fruitful, and we'll explain the main advantages of this way of thinking.

Martin Szyld is a young researcher with a PostDoc position at the University of Buenos Aires in Argentina. His main interest is the relation between the Galois and Tannaka recognition theorems, in their general categorical forms. He's been teaching mathematics at various levels for over 10 years, and is convinced that knowing the basics of category theory is valuable at all these times in a mathematician's career.