

COMONOIDS IN REL

ROBERT PARE

The category Rel whose objects are sets and whose morphisms are relations is, in many ways, very similar to the category of finite dimensional vector spaces. It is a self-dual symmetric compact closed category. We will study comonoids in it via a number of examples which emphasize the analogy with k -coalgebras. This analogy is sufficiently strong to suggest the transfer of ideas from one setting to the other. On the other hand, there are enough differences to make it interesting.