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*Ultraproducts of  $C^*$ -algebras, their Cuntz semigroups, and their (quasi)traces*

I will discuss how the Cuntz semigroup of an ultraproduct of  $C^*$ -algebras can be determined out of the semigroups of the individual algebras. This uses the notion of scaled Cuntz semigroups as well as a completion process very useful in the study of abstract Cuntz semigroups. As an application, I will mention how this result can be used to characterize when limit (quasi)traces are dense in the space of all (quasi)traces on a free ultrapower. This is joint work with Ramon Antoine and Hannes Thiel, and also Ramon Antoine, Hannes Thiel and Leonel Robert.