

Seminar on Semigroups, Automata and Languages

The abelian kernel of an inverse semigroup

Vicent Pérez Calabuig

Departament de Matemàtiques
Universitat de València

Abstract: The problem of computing the abelian kernel of a finite semigroup was first solved by Delgado describing an algorithm which decides whether a given element of a finite semigroup S belongs to the abelian kernel. Steinberg extended the result for any variety of abelian groups with decidable membership. In this presentation, we use a completely different approach to complete these results by giving an exact description of the abelian kernel of an inverse semigroup. An abelian group which gives this abelian kernel is also constructed.

We are working on extending this study to obtain results on the computability of generalised kernels of inverse semigroups, such as the metabelian kernel or the \mathfrak{F} -kernel, for extension-closed varieties of groups \mathfrak{F} .

Date: Friday, 27 November 2020, 14:30

Place: Online Zoom meeting