

# CHARACTERIZATION OF SUBDIRECTLY IRREDUCIBLE HEYTING ALGEBRAS WITH NEGATIVE TENSE OPERATORS

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In this research work, a comprehensive study of Heyting algebras with four negative tense operators:  $g$ ,  $h$ ,  $f$ , and  $p$ , has been conducted. The main objective has been to provide a proof that these algebras offer a suitable algebraic semantics for intuitionistic propositional logic with negative Galois connections [1]. The analysis has been centered on characterizing subdirectly irreducible algebras within this new variety of Heyting algebras. To achieve this, Hasimoto's results [2] have been utilized to provide an algebraic characterization.

*Trabajo en conjunto con Federico Almiñana (Universidad Nacional de San Juan) y William Zuluaga (Universidad Nacional del Centro de la Provincia de Buenos Aires).*

## **Referencias**

- [1] Ma, M., Li, G. Intuitionistic Propositional Logic with Galois Negations. *Stud Logica* 111, 21–56 (2023).
- [2] Hasimoto, Y., Heyting algebras with operators, *Mathematical Logic Quarterly* 47(2):187-196, 2001.