

## **Abstract**

In this master thesis we investigate completeness theorems in the framework of abstract algebraic logic. Our main interest lies in the completeness with respect to the so called relatively (finitely) subdirectly irreducible models. Notable part of the presented theory concerns the difference between finitary and infinitary logical systems. We focus on the well-known fact that the completeness theorem with respect to relatively (finitely) subdirectly irreducible models can be proven in general for all finitary logics and we discuss the possibility of generalizing this theorem even to infinitary logics. We show that there are two interesting intermediate properties between this completeness and finitariness, namely (completely) intersection-prime extension properties. Based on these notions we define five classes of logics and propose a new hierarchy of finitary and infinitary logics. As a main contribution of this dissertation we present an example of a logic separating some of these classes.

**Keywords:** Abstract algebraic logic, completeness, relatively (finitely) subdirectly irreducible models, RSI-completeness, RFSI-completeness, (completely) intersection-prime extension property, IPEP, CIPEP.