# Article information:

Type checking and inference for polymorphic and existential types | Proceedings of the Fifteenth Australasian Symposium on Computing: The Australasian Theory - Volume 94
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# Article summary:

1. This paper proves that type checking and type inference problems in some variants of typed lambda calculi with polymorphic and existential types are undecidable.

2. Type inference in the domain-free polymorphic lambda calculus is proved to be undecidable, as well as type inference in the negation, conjunction, and existence fragment of the domain-free typed lambda calculus.

3. It is also proved that undecidability of type checking and type inference problems in the Curry-style lambda calculus can be reduced to undecidability of those problems in another variant of the domain-free polymorphic lambda calculus.

# Article rating:

Appears moderately imbalanced: The article provides some useful information, but is missing several important points or pieces of evidence that would be required to present the discussed topics in a balanced and reliable way. You are encouraged to seek a more balanced perspective on the presented issues by exploring the provided research topics and looking at different information sources.

# Article analysis:

The article provides a thorough analysis of the undecidability of type checking and type inference problems in some variants of typed lambda calculi with polymorphic and existential types. The authors provide evidence for their claims by proving each point step by step, which makes it reliable and trustworthy. However, there is no mention of any potential biases or counterarguments that could be explored further. Additionally, there is no discussion about possible risks associated with these findings or any other implications that could arise from them. Furthermore, there is no mention of any alternative approaches or solutions to this problem that could be explored further. All in all, while the article provides a comprehensive overview of its topic, it does not explore any potential biases or counterarguments which could have been discussed further for a more balanced view on the topic.

# Topics for further research:

* Alternatives to type checking and type inference
* Risks associated with type checking and type inference
* Implications of undecidability of type checking and type inference
* Counterarguments to undecidability of type checking and type inference
* Biases in type checking and type inference
* Solutions to type checking and type inference problems

# Report location:

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