# Alternative Methods for Implementing Explicit and Finding Implicit Sharing in embedded DSLs

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**Abstract.** TODO The abstract should briefly summarize the contents of the paper in 150-250 words.

**Keywords:** First keyword · Second keyword · Another keyword.

#### 1 Introduction

TODO describe sharing problem (mention observable sharing [4] and implicit/explicit sharing [5] papers)

TODO describe finally tagless [1]

TODO overview of our method

## 2 Detecting Sharing In Finally Tagless DSLs

TODO

## 3 Implicit Sharing Via Hash-Consing

TODO cite Ershov's original description of hash-consing [2] cite Type safe consing implementation (with performance benchamrks) [3]

#### 4 Limitations of Hash-Consing

TODO add-chains example

#### 4.1 Explicit Sharing and Limitations

TODO

### 5 Implicit Sharing Via ByteString ASTs

TODO

#### 5.1 Memory Limitations

TODO

# 6 Explicit Sharing Of ByteString ASTs

TODO

**Acknowledgements** Please place your acknowledgments at the end of the paper, preceded by an unnumbered run-in heading (i.e. 3rd-level heading).

#### References

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