

A Formal Semantics of the GraalVM Intermediate Representation

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Verifying GraalVM compiler optimizations

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- Proving transformations of the GraalVM IR preserve semantics

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- This paper marks the first steps by:

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- This paper

Roadmap

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- What is GraalVM?

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- What is GraalVM?
- Building a GraalVM IR from scratch
- Encoding the IR structure

What is GraalVM?

GraalVM Briefly

The GraalVM compiler is a state-of-the-art JVM bytecode compiler


```
void fact() {  
    return;  
}
```

0 Start



1 Return

```
int fact() {  
    return 0;  
}
```



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