

GRADUALIZING THE CALCULUS OF INDUCTIVE CONSTRUCTIONS

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CPP '21 – Lightning Talk

What's this?

Unknown type ?

Optimistic type comparison & runtime checks

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Ripe for CIC!

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Why would I want this in my favorite proof assistant?

Incremental development!

- Dependent types are HARD:

```
head _ _ (filter _ _ even [0 ; 1 ; 2])
```

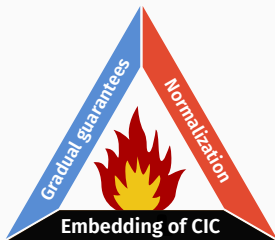
- ? is a wildcard *with a computational behaviour*

WHAT'S IN THE PAPER?

- Gentle introduction

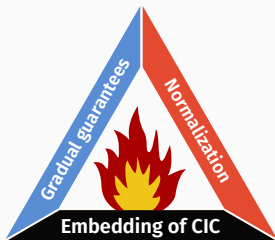
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- Gentle introduction
- Unavoidable tension



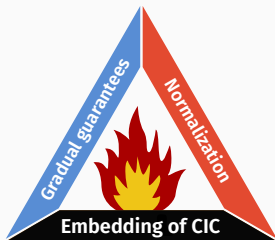
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- New type system, 3 variants
- Order models for CIC



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The pre-print is on arXiv! (link on CPP website)