Esterel in Racket

**integrating Esterel into
a conventional language,
causality errors and all**

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Causality Errors

```
(if (present? S)      (if (present? S)
    (void)                (emit S)
    (emit S))             (void))
```

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Three problems with causality errors
(Boussinot & de Simone, 1995)

- Having to define & implement an analysis to detect errors

- Debugging causality errors is difficult

- Causality errors threaten modularity

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Languages do not exist in a vacuum
Community & ecosystems matter

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ReactiveML	HipHop.js
• ML community	• JavaScript community
• Alternative semantics	• Staging

Challenge

Can we keep Esterel's original semantics,
but fully integrate it into a "normal" PL?