

Automatically Verifying Compiler Optimizations

CSE 507

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ZACH



DANGER

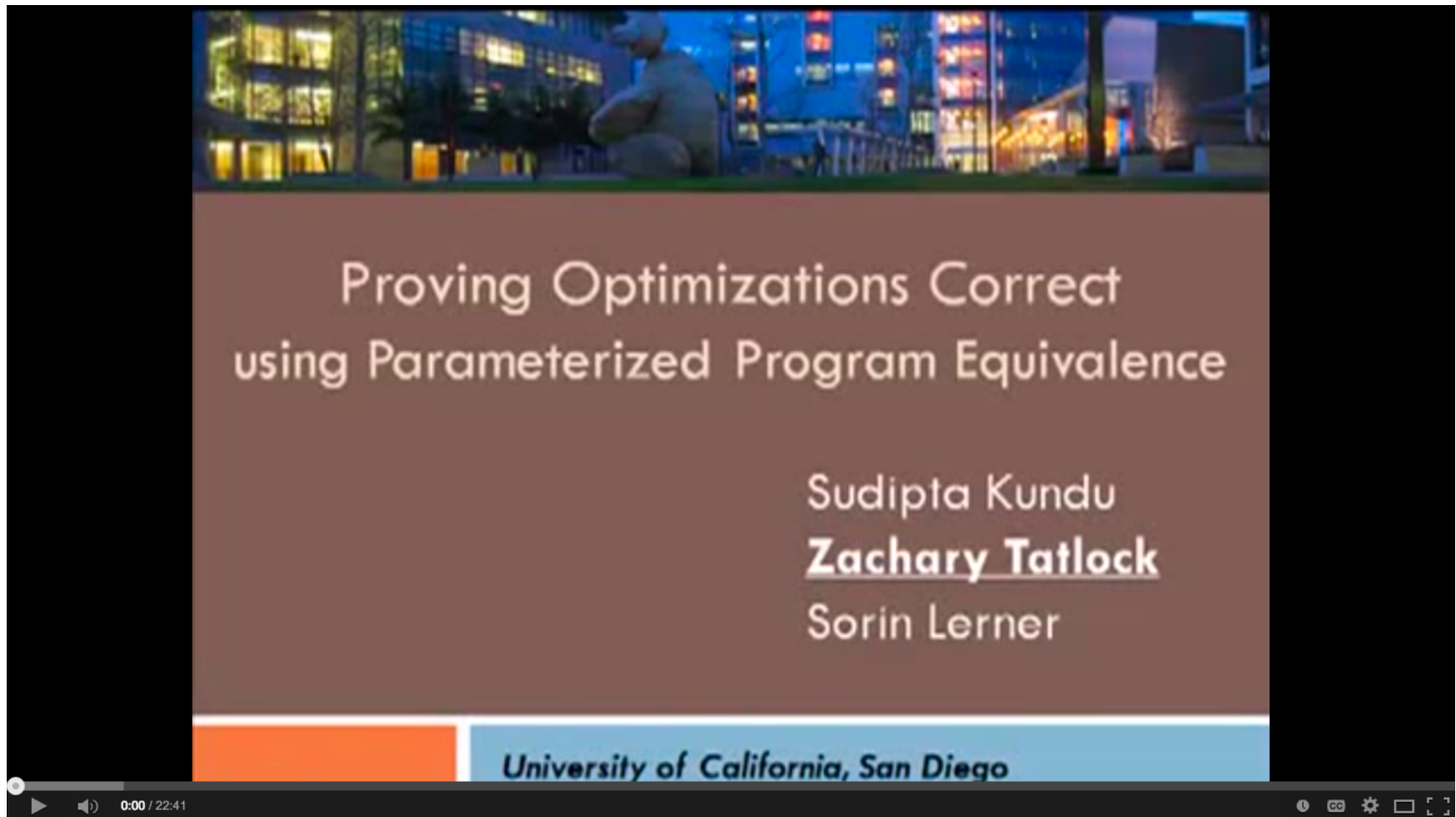
**TIME TRAVEL
AHEAD!
ASK QUESTIONS!**

**viaje en el tiempo por delante
hacer preguntas**

LOS VIOLADORES SERAN PROCESADOS

Movie + Discussion Time

<https://www.youtube.com/watch?v=-Re0CUrHQtM>



The image shows a YouTube video player interface. The video content is a presentation slide with a background image of a modern building at night. The slide text is as follows:

Proving Optimizations Correct
using Parameterized Program Equivalence

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The video player controls at the bottom show a play button, a volume icon, a progress bar at 0:00 / 22:41, and icons for closed captions, settings, and full screen.

Code

<https://github.com/ztatlock/pec>

```
let main () =
  parse_args ();
  if
    "input"
    |> Flags.get
    |> Rewrite.parse
    |> ff Rewrite.log_cfgs
    |> Synch.infer
    |> ff Rewrite.log_paths
    |> SimRel.infer
    |> ff Rewrite.log_simrel
    |> ff Rewrite.write_dot
    |> Check.check
  then
    print "VALID\n"
  else
    print "INVALID\n"
```