

The background features a light gray circuit board pattern with black traces and circular components. A dark gray horizontal band runs across the middle of the image, serving as a backdrop for the text.

Gasterra year price presentation

By Erik Bozelie & Peter Bruins

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ROTTERDAM2013

Our presentation

- Gasterra year price
- Project
- Research questions
- Comsol



**GasTerra Transitie
Jaarprijs 2013**

Energize the future

Gasterra year price

- Yearprice for schools
- Renewable energy
- Funded by gassterra
- Best ideas gets support



Winning idea

- Upgrade set for radiators
 1. Efficiency
 - Fans
 - Isolation
 - Increase effective surface area
 - Increase efficiency of other components
 - Lower radiator heating temperature
 2. Overshoot
 - Smart regulators

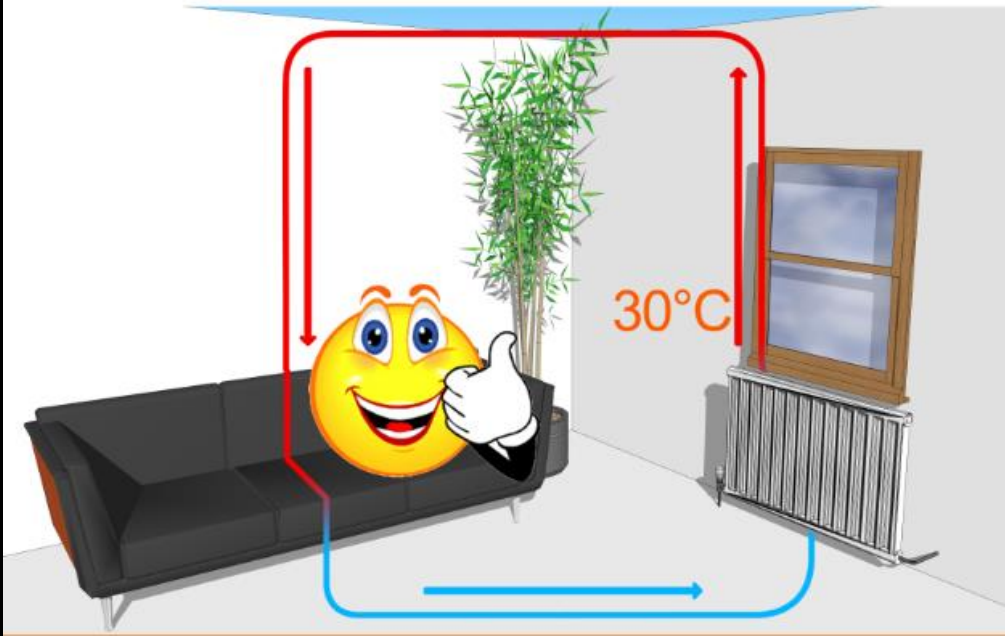
SLIMME RADIATORUPGRADE



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The idea

- Simple
- Existing components
- Expecting huge result
- Without any huge changes in current equipment.

Research questions

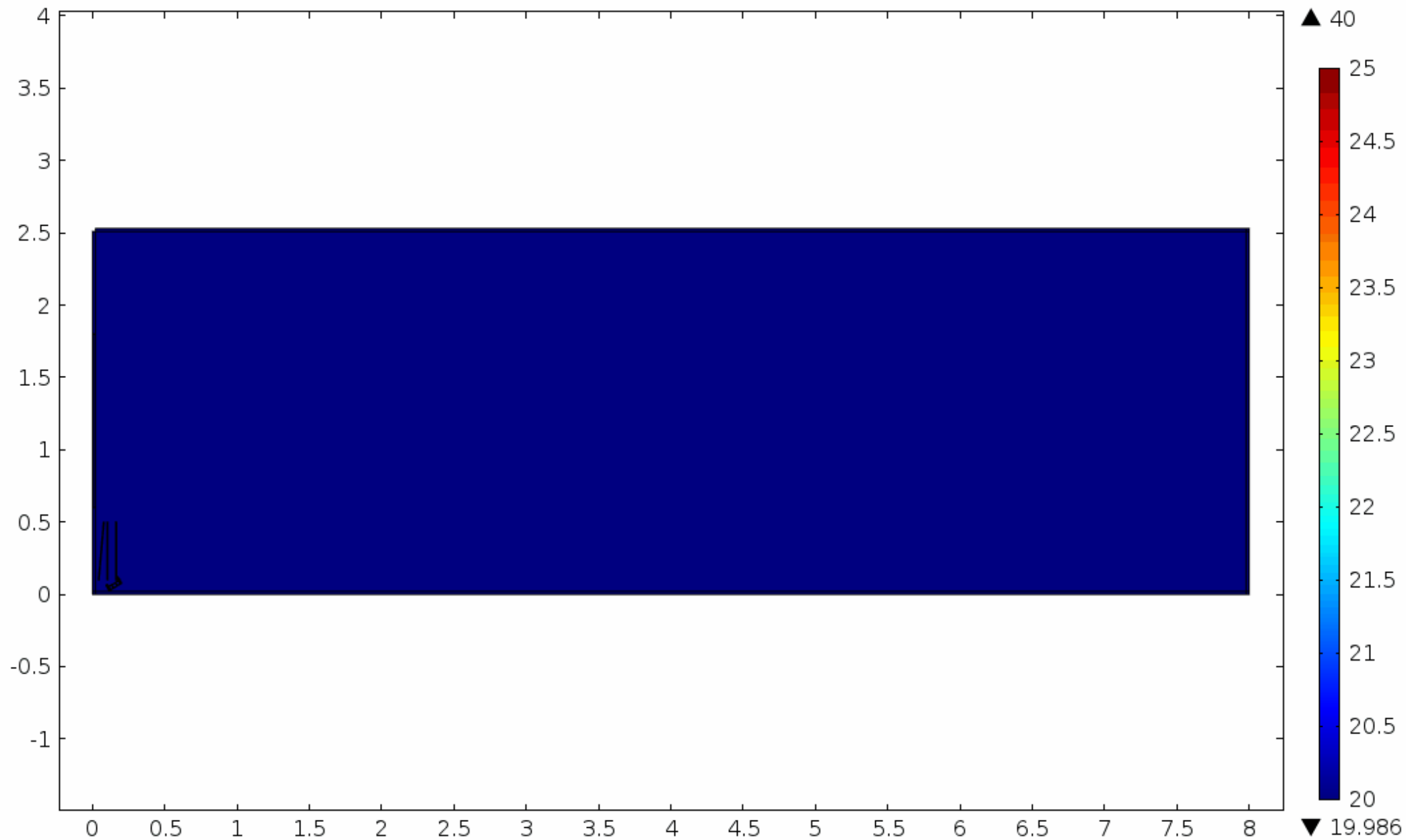
What is the difference between a room with and without:

- Fans.
- Isolation
- Window open
- Smart regulations

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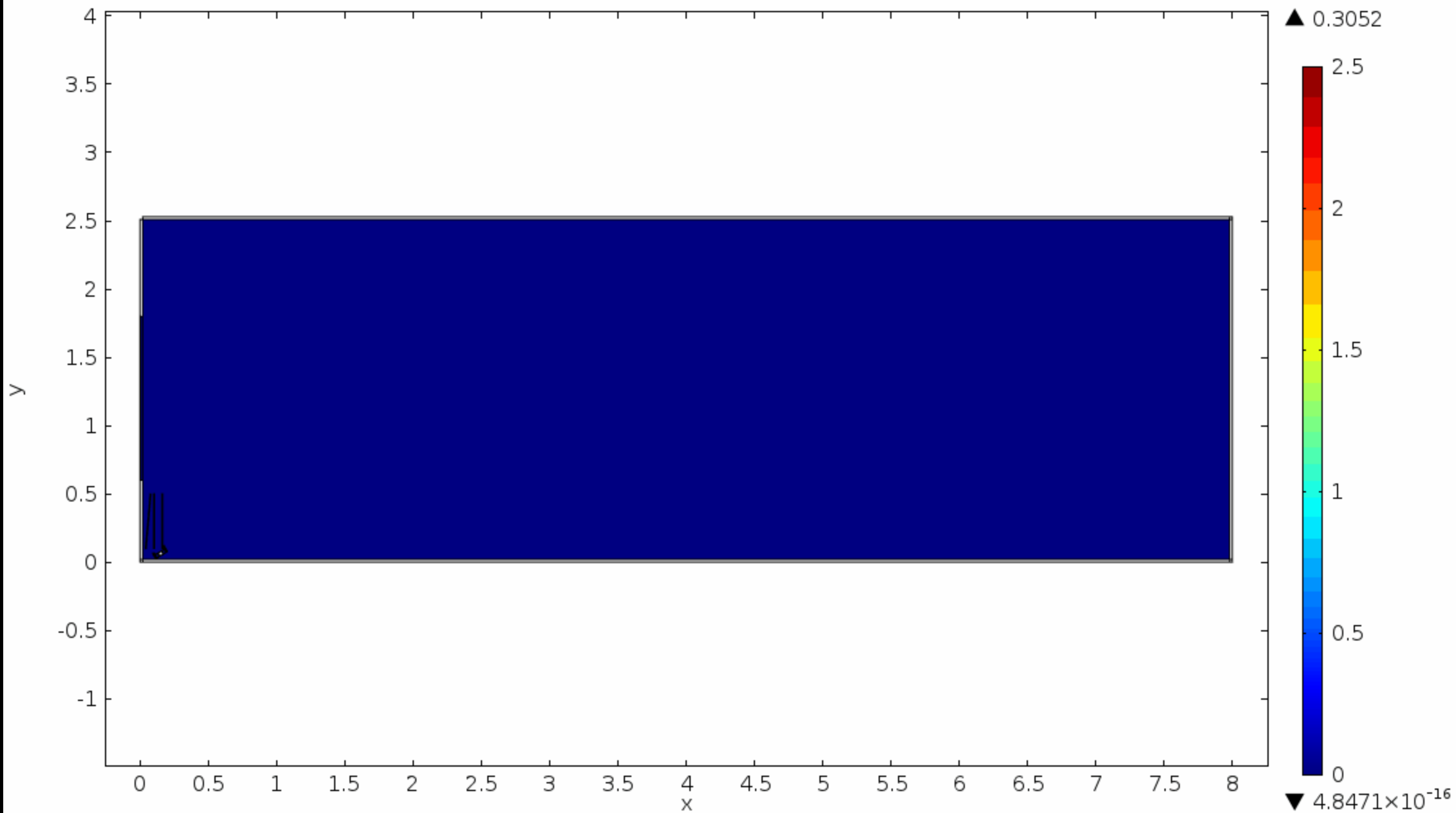
Time=0 Surface: Temperature (degC)

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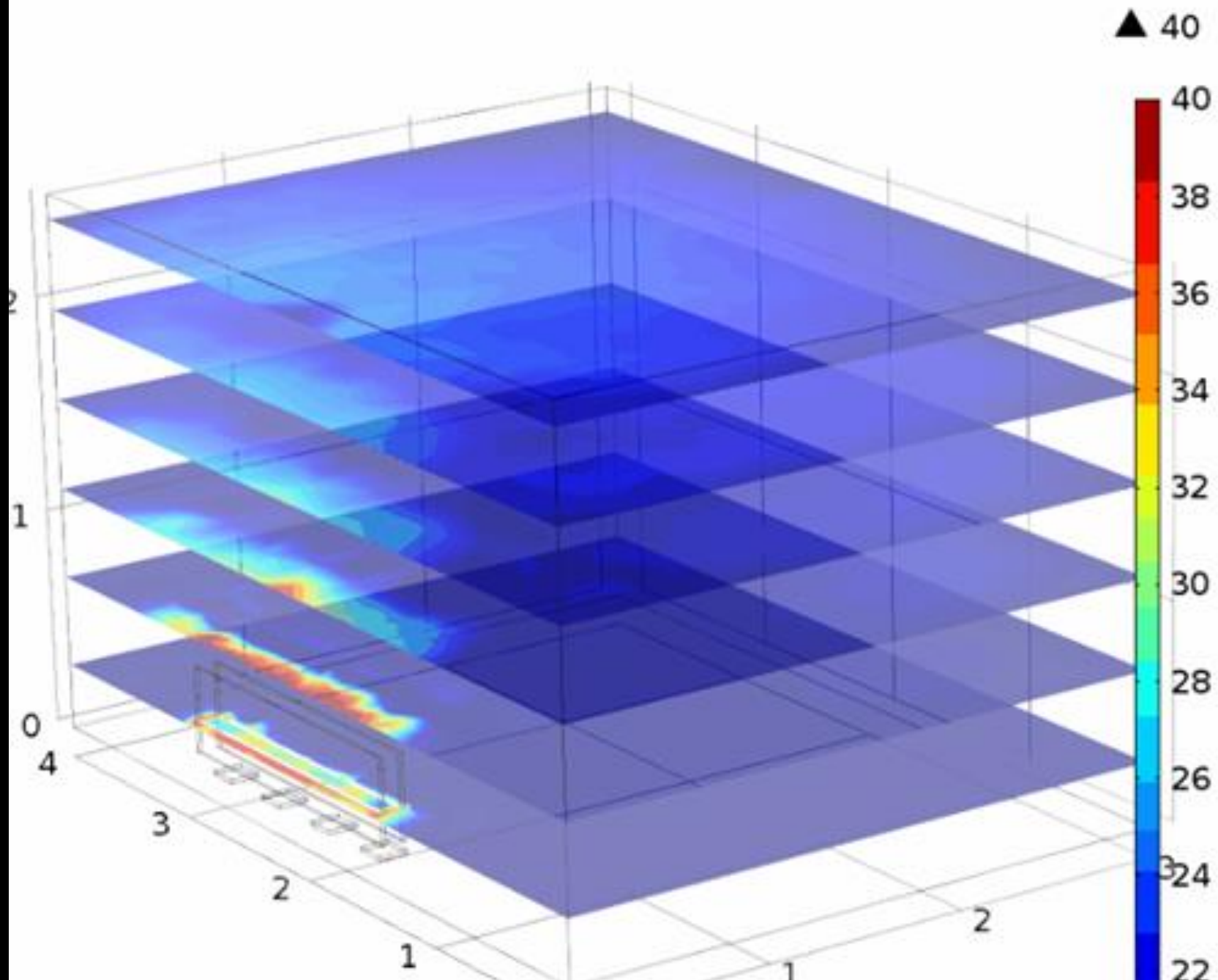


Time=0 Surface: Velocity magnitude (m/s)

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Time=32.6 Slice: Temperature (degC)



Questions?