The *Tango* Theme for Beamer

Showcase and Demonstration

Hochschule Düsseldorf
University of Applied Sciences

Fachbereich Maschinenbau und Verfahrenstechnik
Faculty of Mechanical and Process Engineering

John Doe, Jason Miller, Tim Turner

Univseristy of Applied Sciences Düsseldorf

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Elements
Lists

List using the '`enumerate`' environment:

1. First item.
2. Second item.
    - 2.1 Sub-list first item.
    - 2.2 Sub-list second item.
        - 2.2.1 Sub-sub-list first item.
        - 2.2.2 Sub-sub-list second item.

List using the '`itemize`' environment:

- First item.
- Second item.
    - Sub-list first item.
    - Sub-list second item.
        - Sub-sub-list first item.
        - Sub-sub-list second item.

Elements

Alert, Blocks & Links

Sample of the 'alert' command.

Conventional Block

This block can be used to highlight key information of a given slide.

Example Block

Examples of different concepts can be placed inside this block.

Alert Block

Furthermore, one can put very important information inside this block.

This is a web-link github.com/schmaeke/tango-beamer.

Here we cite [Anand and Govindjee, 2020].

Elements
Code Blocks

```
using Stela, Stela.Tensors

# Create some tensors
a = Tensors.rand(Float16, 5, 10)
b = Tensors.rand(Float16, 10, 3)

# Do some computations
c = sum(a * b)^Float16(4)

# Pass through the graph
forward(c)  # Compute c, result stored in c.data
backward(c) # Compute derivatives of c, stored in *.grad

println("dc/da = (a.grad)")
println("dc/db = (b.grad)")

# Visualize
to_dot_graph(c, "graph_file"; create_svg=true) # Export to Graphviz
```

Listing: Some random code

Practical

Some Math & Figures

- Equilibrium conditions

$$
\begin{aligned}
-\nabla \cdot \boldsymbol{\sigma} &= \boldsymbol{p} & \forall \boldsymbol{x} \in \Omega \qquad (1a)\\
\boldsymbol{\sigma} \cdot \boldsymbol{n} &= \boldsymbol{t} & \forall \boldsymbol{x} \in \Gamma_N \qquad (1b)\\
\boldsymbol{u} &= \overline{\boldsymbol{u}} & \forall \boldsymbol{x} \in \Gamma_D \qquad (1c)
\end{aligned}
$$

- Linear strain-displacement relation

$$
\varepsilon = \frac{1}{2}\left(\nabla \boldsymbol{u} + \nabla \boldsymbol{u}^T\right) \qquad (2)
$$

- Constitutive equation

$$
\boldsymbol{\sigma} = \boldsymbol{C} : \varepsilon \qquad (3)
$$

- Resulting weighted-residual form

$$
\int_\Omega \varepsilon(\boldsymbol{v}) : \boldsymbol{C} : \varepsilon(\boldsymbol{u}_h)\, \mathrm{d}\Omega = \int_\Omega \boldsymbol{v}\,\boldsymbol{p}\, \mathrm{d}\Omega + \int_{\Gamma_N} \boldsymbol{v}\,\boldsymbol{t}\, \mathrm{d}\partial\Omega + \int_{\Gamma_D} \boldsymbol{v}\,\boldsymbol{t}\, \mathrm{d}\partial\Omega
$$
$$
\wedge \quad \boldsymbol{u}_h = \overline{\boldsymbol{u}} \quad \forall \boldsymbol{x} \in \Gamma_D \qquad (4)
$$

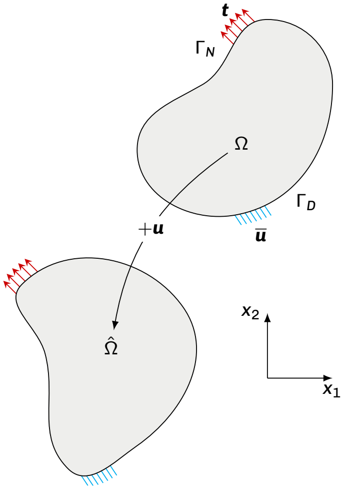

Figure: Initial Ω and deformed $\hat{\Omega}$ configuration of solid-mechanics problem.

Bibliography

Literature I

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Jan Niklas Schmäke   jan.schmaeke@hs-duesseldorf.de
Martin Ruess   martin.ruess@hs-duesseldorf.de

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