The actual document starts on next page. Some instructions:

How to track changes

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  Pick your favourite color: `https://en.wikibooks.org/wiki/LaTeX/Colors`
- This is how you add[HN] text:

  `\added[id=HN]{add}`
- This is how you add (with comment) text: **[HN 1]** comment

  `\added[id=HN, remark={comment}]{add (with comment)}`
- This is how you ~~delete~~[HN] text:

  `\deleted[id=HN]{delete}`
- This is how you ~~delete (with comment)~~ text: **[HN 2]** comment

  `\deleted[id=HN, remark={comment}]{delete (with comment)}`
- This is how you make a note : **[HN 3]** A note

  `\note[id=HN]{A note}`
- This is how you replace~~relapce~~[HN] text:

  `\replaced[id=HN]{relapce}{replace}`
- This is how you replace (with comment)~~relapce (wthi coment)~~ text: **[HN 4]** mis-spelled

  `\replaced[id=HN, remark={mis-spelled}]{relapse}{replace}`
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Repo: https://github.com/xxx

ABSTRACT. This is the place for an abstract.

1. INTRODUCTION

This is the place for introduction.

1.1. Subsection.

Subsection. Example text:

We shall consider the specific transport property ϕ and note that its spatial and temporal variation is governed by a second-order partical differential equation (PDE), viz.

$$\frac{\partial}{\partial t}(\rho\phi) + \nabla\boldsymbol{\cdot}(\rho\phi\mathbf{U}) - \Gamma_\phi \nabla^2\phi - S_\phi(\phi) = 0. \tag{1.1}$$

Herein, $\phi = \phi(\mathbf{x}, t)$ is an arbitrary general intensive physical quantitity, e.g., a fluid property (scalar or tensor of any rank). Thus, (1.1) is often referred to as generic transport equation.

OpenFOAM® (Open Field Operation And Manipulation) is a flexible and mature C++ Class Library for Computational Continuum Mechanics (CCM) and Multiphysics. Its Object-Oriented-Programming (OOP) paradigm enables to *mimic data types and basic operations* of CCM using top-level syntax as close as possible to the conventional mathematical notation *for tensors and partial differential equations*:

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TABLE 1. Finite Volume Notation

implicit differential operators	
rate of change	$\left[\!\left[\frac{\partial[\rho\phi]}{\partial t}\right]\!\right]$
convection term	$\left[\!\left[\nabla\bullet\left(F[\phi]_{f(F,S,\gamma)}\right)\right]\!\right]$
diffusion term	$[\![\nabla\bullet(\Gamma\nabla[\phi])]\!]$
linear part of source term	$[\![S_p\,[\phi]]\!]$
explicit differential operators	
temporal term	$\frac{\partial\rho\phi}{\partial t}$
divergence term	$\nabla\bullet(\rho\mathbf{U}\phi_{f(\rho\mathbf{U},S,\gamma)})$
laplacian term	$\nabla\bullet(\Gamma\nabla\phi)$
constant part of source term	S_u

```
solve
(
  fvm::ddt(rho,Phi)
  + fvm::div(phi, Phi)
  - fvm::laplacian(Gamma, Phi)
 ==
  Sphi
);
```

Beside providing OpenFOAM code itself, spatial and temporal discretisation of Eq. 1.1 can be also described in a precise and concise manner using the finite-volume notation [1] - see Tab. 1.

2. Theoretical backgroud

Text in this section. Here is an examplary figure 1.

3. Conclusion

This is a conclusion.

Author Contributions: Conceptualisation, J.S.; methodology, J.S.; software, J.S; validation, J.S. and P.M.; formal analysis, J.S. and P.M.; investigation, J.S.; resources,

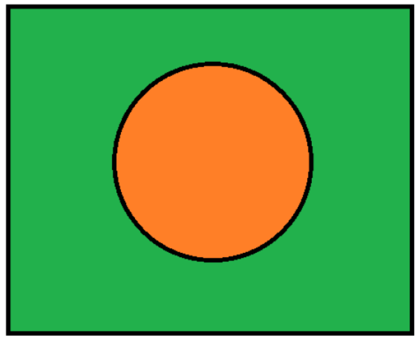

FIGURE 1. Examplary figure

P.M.; data curation, P.M.; writing—original draft preparation, J.S.; writing—review and editing, J.S. and P.M.; visualisation, J.S.; supervision, P.M.; project administration, P.M.; funding acquisition, P.M. All authors have read and agreed to the published version of the manuscript. *Please turn to the CRediT taxonomy for the term explanation.*

REFERENCES

[1] H. G. Weller, G. Tabor, H. Jasak, and C. Fureby, "A tensorial approach to computational continuum mechanics using object orientated techniques," *Computers in Physics*, vol. 12, pp. 620–631, 1998.