### CURRICULUM VITAE

### 1 Personal

Name Dr. Pedro Henrique de Almeida Konzen

Birthdate June 12, 1981

**Profession** Professor, IME, UFRGS

Nationality Brazilian

## 2 Education

1988 - 1995 Elementary School, Santa Cruz do Sul, Brazil

1996 - 1998 Secondary School, Santa Cruz do Sul, Brazil

1999 - 2004 Studies in Computational and Applied Mathematics

Universidade Federal do Rio Grande do Sul - UFRGS

Porto Alegre, Brazil

2004 - 2006 Master in Applied Mathematics

Dissertation title: "Estudo de um modelo convectivo-

difusivo-reativo em combustão no método de elementos

finitos"

Supervisor: Prof. Dr. Álvaro Luiz de Bortoli

CAPES full Research scholarship

Graduate Program in Applied Mathematics (PPGMAp)

Universidade Federal do Rio Grande do Sul - UFRGS

Porto Alegre, Brazil

2006 - 2010 Doctorate in Applied Mathematics

(2006 - 2008) CAPES research scholarship

(2008 - 2010) DAAD/CAPES two-years research scho-

larship as part of the doctorate research project

Interdisciplinary Center for Scientific Computing (IWR)

Universität Heidelberg, Heidelberg, Germany

Thesis title: "Simulação numérica de chama laminar axi-

simétrica de metano/ar usando REDIM"

Supervisor: Prof. Dr. Álvaro Luiz de Bortoli

Graduate Program in Applied Mathematics - PPGMAp

Universidade Federal do Rio Grande do Sul - UFRGS

Porto Alegre, Brazil

# 3 Working Experiences

2010 Guess Professor

Universidade Federal da Integração Latino-Americana -

UNILA

Foz do Iguaçu, Brazil

2011 - 2014 Professor

Universidade Federal da Integração Latino-Americana -

UNILA

Foz do Iguaçu, Brazil

since 07/2014 Professor

Instituto de Matemática e Estatística - IME

Universidade Federal do Rio Grande do Sul - UFRGS

Porto Alegre, Brazil

since 04/2020 Researcher

Graduate Program in Applied Mathematics - PPGMAp

Instituto de Matemática e Estatística - IME

Universidade Federal do Rio Grande do Sul - UFRGS

Porto Alegre, Brazil

11/2021 Research visit

Numerics in Application Group

Faculty of Mathematics

Institute of Analysis and Numerics

Otto-von-Guericke Universität

Magdeburg, Germany

## 4 Languages

Portuguese native proficiency

English full professional proficiency

Spanish working knowledge German intermediate skills

### Main Publications

- KONZEN, P.H.A.; Guidi, L.F.; RICHTER, T.. Quasi-Random Discrete Ordinates Method
  to Radiative Transfer Equation with Linear Anisotropic Scattering. DEFECT AND DIFFUSION FORUM, v. 427, p. 109-119, 2023.
- CORREA, C.; KONZEN, P.H.A.; CARVALHO, Â.R.; GIOVANELLA, P.; BENTO, F.M.; FERRÃO, M.F.. Use of digital images to count colonies of biodiesel deteriogenic microorganisms. JOURNAL OF MICROBIOLOGICAL METHODS, v. 178, p. 106063, 2020.
- SAUTER, E.; DE AZEVEDO, F.S.; KONZEN, P.H.A.. Nyström Method Applied to the Transport Equation in a Semi-Reflective Rectangle. JOURNAL OF COMPUTATIONAL AND THEORETICAL TRANSPORT, v. 47, p. 520-541, 2019.
- KONZEN, P.H.A.; Guidi, L.F.; RICHTER, T.. Quasi-random discrete ordinates method for neutron transport problems. ANNALS OF NUCLEAR ENERGY, v. 133, p. 275-282, 2019.
- AZEVEDO, F.S.; SAUTER, E.; KONZEN, P.H.A.; THOMPSON, M.; BARRICHELLO,
   L.B.. Integral formulation and numerical simulations for the neutron transport equation
   in X-Y geometry. ANNALS OF NUCLEAR ENERGY, v. 112, p. 735-747, 2018.
- KONZEN, P.H.A.; SAUTER, E.; AZEVEDO, F.S.; ZINGANO, P.R.A.. Numerical Simulations with the Galerkin Least Squares Finite Element Method for the Burgers' Equation on the Real Line. TEMA Tendências em Matemática Aplicada e Computacional, v. 18, p. 287-304, 2017.
- KONZEN, P.H.A.; SAUTER, E.; AZEVEDO, F.S.. Green Function Formulation and Finite Element Discretization for Solving the Heat Radiative Transfer in a Slab. JOURNAL OF COMPUTATIONAL AND THEORETICAL TRANSPORT, v. 45, p. 368-385, 2016.

- DE AZEVEDO, F.S.; SAUTER, E.; KONZEN, P.H.A.; THOMPSON, M.. Numerical results for the transport equation with strongly anisotropic scattering in a slab. ANNALS OF NUCLEAR ENERGY, v. 79, p. 61-67, 2015.
- KONZEN, P.H.A.; RICHTER, T.; RIEDEL, U.; MAAS, U.. Implementation of RE-DIM reduced chemistry to model an axisymmetric laminar diffusion methane-air flame. COMBUSTION THEORY AND MODELLING, v. 15, p. 299-323, 2011.