



Robert Blaga

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● WORK EXPERIENCE

01/10/2015 – 31/01/2021

ASSOCIATE RESEARCHER – WEST UNIVERSITY OF TIMISOARA

Research, Teaching
Timisoara, Romania

02/2021 – CURRENT – Timisoara, Romania

SCIENTIFIC RESEARCHER III – WEST UNIVERSITY OF TIMISOARA

● EDUCATION AND TRAINING

10/2008 – 07/2011 – Timisoara, Romania

BACHELOR OF SCIENCE (BSC) – West University of Timisoara

Physics

10/2011 – 07/2013 – Timisoara, Romania

MASTER OF SCIENCE (MSC) – West University of Timisoara

Astrophysics and Elementary particles

10/2013 – 12/2016 – Timisoara, Romania

DOCTOR OF PHILOSOPHY (PHD) – West University of Timisoara

Quantum fields on curved spacetimes

● LANGUAGE SKILLS

Mother tongue(s): **HUNGARIAN** | **ROMANIAN**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	C2	C2	C2	C2	C2
GERMAN	B2	B2	A2	A2	B1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

● DIGITAL SKILLS

R programming | Wolfram Mathematica | Microsoft Office | MathCad | LaTeX

● PUBLICATIONS

Selected works

R Blaga, D. Calinoiu, N Stefu, R Boata, A Sabadus, E Paulescu, N Pop, O Mares, S Bojin, M. Paulescu, M. *Quantification of the aerosol-induced errors in solar irradiance modeling*. Meteorology and Atmospheric Physics **133** (2021).

R. Blaga, D. Calinoiu, M. Paulescu. *A one-parameter family of clear-sky solar irradiance models adapted for different aerosol types*. Journal of Renewable and Sustainable Energy, 13(2), p.023701. [Editor's Pick, featured on front page]

D Yang, S Alessandrini, J Antonanzas, F Antonanzas-Torres, V Badescu, HG Beyer, **R Blaga**, J Boland, JM Bright, CF Coimbra, M David et al. *Verification of deterministic solar forecasts*. Solar Energy (2020).

R Blaga, A Sabadus, N Stefu, C Dughir, M Paulescu, V Badescu. *A current perspective on the accuracy of incoming solar energy forecasting*. Progress in Energy and Combustion Science **70** (2019).

R Blaga. *The impact of temporal smoothing on the accuracy of separation models*. Solar Energy **191** (2019).

E Paulescu, **R Blaga**. *A simple and reliable empirical model with two predictors for estimating 1-minute diffuse fraction*. Solar Energy **180** (2019).

R Blaga, M Paulescu. *Quantifiers for the solar irradiance variability: A new perspective*. Solar Energy **174** (2018).

D Calinoiu, N Stefu, R Boata, **R Blaga**, N Pop, E Paulescu, A Sabadus, M Paulescu. *Parametric modeling: A simple and versatile route to solar irradiance*. Energy Conversion and Management **164** (2018).

N Stefu, M Paulescu, **R Blaga**, D Calinoiu, N Pop, R Boata, E Paulescu. *A theoretical framework for Ångström equation. Its virtues and liabilities in solar energy estimation*. Energy Conversion and Management **112** (2016).

E Paulescu, **R Blaga**. *Regression models for hourly diffuse solar radiation*. Solar Energy **125** (2016)

VE Ambruş, **R Blaga**. *High-order quadrature-based lattice Boltzmann models for the flow of ultrarelativistic rarefied gases*. Physical Review C **98** (2018).

R Blaga, S Busuioc. *Quantum Larmor radiation in de Sitter spacetime*. The European Physical Journal C **76** (2016).

R Blaga. *One-photon pair production on the expanding de Sitter spacetime*. Physical Review D **92** (2015).

R Blaga. *Radiation of inertial scalar particles in the de Sitter universe*. Modern Physics Letters A **30** (2015).

● PROJECTS

Projects

Ph.D program August 2014–October 2015

Faculty of Physics, West University of Timișoara

Project: *Doctoral and Postdoctoral programs support for increased competitiveness in Exact Sciences* (POSDRU/159/1.5/S/137750)

Project coordinator: Daniel Vizman (daniel.vizman@e-uvv.ro)

Research Assistant October 2015–October 2017

Faculty of Physics, West University of Timișoara

Project: *Lattice Boltzmann models for the simulation of flows of rarefied gases in the relativistic regime* (Young Teams Research Project PN-II-RU-TE-2014-4-2910)

Project coordinator: Victor E. Ambruș (victor.ambrus@e-uvv.ro)

Research Assistant April 2017–April 2018

Faculty of Physics, West University of Timișoara

Project: *PV power forecasting toolkit for smart grid-management* (PN-III-P2-2-1-PED-2016-0592)

Project coordinator: Marius Paulescu (marius.paulescu@e-uvv.ro)

Researcher November 2020–June 2022

Faculty of Physics, West University of Timișoara

Project: *All-sky imager-based solar power forecasting system for smart-grid operation* (PN-III-P2-2.1-PED-2019-3942)

Project coordinator: Marius Paulescu (marius.paulescu@e-uvv.ro)

● ORGANISATIONAL SKILLS

Organisational skills

Good team-leading skills obtained through working with groups of different sizes on research projects.

● COMMUNICATION AND INTERPERSONAL SKILLS

Communication and interpersonal skills

Good communication skills gained through conferences and presentations popularising science.