

Juan Camilo Henao Londono

Curriculum Vitae

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Education

- 2018–Currently **Ph. D. Physics**, *Universität Duisburg-Essen*, Duisburg, Germany.
- 2015–2016 **PgD. Strategic Project Management**, *Universidad Nacional de Colombia*, Manizales, Colombia.
- 2012–2015 **Master of Science in Physics**, *Universidad Nacional de Colombia*, Manizales, Colombia.
- 2007–2012 **Bachelor of Science in Engineering Physics**, *Universidad Nacional de Colombia*, Manizales, Colombia.

Master Thesis

Title *Surface roughness estimation by 3D stereo SEM reconstruction.*

Advisors Juan Carlos Riaño Rojas, Juan Bernardo Gómez Mendoza

Description Scanning Electron Microscopy (SEM) stereo pairs are used to estimate the surface roughness of materials, using dynamic programming and stereo-vision to obtain three-dimensional information.

Professional Experience

April/2019 **Lecturer**, *Universität Duisburg-Essen*, Duisburg, Germany.

Currently In the summer semester (April-September), to prepare the solution of the exercises of the econophysics course to explain to the students. In the winter semester (October-March), to prepare, to lead laboratory sessions and to grade the reports of the advance laboratory “statistical time series analysis”.

February/2015	Lecturer , <i>Universidad Nacional de Colombia</i> , Manizales, Colombia.
June/2018	To prepare, apply and grade tests, experiments and laboratory reports. To prepare and dictate class, lead laboratory sessions and direct group work. Teach one or more subjects to bachelor students (theoretical physics, physics laboratory, calculus).
January/2017	Lecturer , <i>Universidad Autónoma de Manizales</i> , Manizales, Colombia.
May/2018	To prepare, apply and grade tests, experiments and laboratory reports. To prepare and dictate class, lead laboratory sessions and direct group work. Teach one or more subjects to bachelor students (theoretical physics, physics laboratory, calculus).

Languages

Spanish	Native	
English	Near-native	<i>TOEFL iBT Total Score: 98/120.</i>
French	Near-native	<i>DALF, C1 Level in accordance with the Common European Framework of Reference for Languages</i>
German	Intermediate	<i>Carl Duisberg Center Cologne, German as a foreign language, competence level B2</i>

Computer Skills

OS	Linux, Windows	Programming	Python, C/C++, FORTRAN
Scientific	Matlab, Octave, Mathematica, Origin	Typography	L ^A T _E X, Office

Event Participation

April 2019	DPG-Frühjahrstagung , <i>Universität Regensburg</i> , Regensburg, Germany. (Participant)
September 2015	XXVI Congreso Nacional de Física , <i>Universidad Nacional de Colombia</i> , Manizales, Colombia. (Participant)
July 2015	XX Congreso Colombiano de Matemáticas , <i>Universidad Nacional de Colombia</i> , Manizales, Colombia. (Poster)
July 2014	International Conference on Image Processing, Computer Vision, and Pattern Recognition IPCV'14 , <i>Monte Carlo Las Vegas, Resort and Casino</i> , Las Vegas, USA. (Speaker)

- September 2012 **III Congreso Nacional de Ingeniería Física**, *Universidad EAFIT*, Medellín, Colombia.
(Participant)
- February 2012 **VI Seminario Internacional de Ingeniería Biomédica**, *Universidad de los Andes*, Bogotá, Colombia.
(Participant)
- October 2011 **XXIV Congreso Nacional de Física**, *Hotel Tequendama*, Bogotá, Colombia.
(Speaker)
- July 2010 **IX Latin American Workshop on Magnetism, Magnetic Materials and their Applications (LAW3M)**, *Universidad Nacional de Colombia*, Manizales, Colombia.
(Participant)
- May 2009 **I Congreso Nacional de Ingeniería Física**, *Universidad Nacional de Colombia*, Manizales, Colombia.
(Participant)

Academic Discussion

- February 2017 **J. C. Henao-Londoño, O. D. Arbeláez-Echeverri, J. D. Agudelo-Giraldo, E. Restrepo-Parra**, *Spontaneous Perpendicular Anisotropy in Ultra-thin Ferromagnetic Films*, *Journal of Superconductivity and Novel Magnetism*, doi:10.1007/s10948-017-4005-9.
- July 2014 **J. C. Henao, J. Meunier, J. B. Gómez-Mendoza and J. C. Riaño-Rojas**, *SEM Surface Reconstruction using optical flow and Stereo Vision*, *Proceedings of the 2014 International Conference on Image Processing, Computer Vision, and Pattern Recognition (IPCV'14)*, 2014.

Complementary Education

- January 2016 **Ph. D. Summer School UC 2016**, *Faculty of Physics*, *Universidad Católica de Chile*, Santiago, Chile
- Autumn 2014 **Research Internship**, *Laboratoire de traitement d'images*, *Université de Montréal*, Montreal, Canada
- February 2012 **Intensive Course**, *Curso Análisis de imágenes biológicas*, *Universidad de los Andes*, Bogotá, Colombia

July 2010 **Intensive Course**, *Latin American School on Magnetism*, Universidad Nacional de Colombia, Manizales.
Colombia

Achievements

- 2018 **Doctoral Programmes in Germany Scholarship**, DAAD, Universität Duisburg-Essen, Duisburg.
Germany
- 2014 **"Jóvenes Investigadores e Innovadores 2013" Scholarship**, *Colciencias*, Universidad Nacional de Colombia, Manizales.
Colombia
- 2013 **"Emerging Leaders in the Americas Program (ELAP)" Scholarship**, *Government of Canada*, Université de Montréal, Montreal.
Canada
- 2013 **"Jóvenes Investigadores e Innovadores 2012" Scholarship**, *Colciencias*, Universidad Nacional de Colombia, Manizales.
Colombia