

VINICIUS JAMELI CABRERA

📍 University of Campinas, Brazil

🏛️ IMECC - Institute of Mathematics, Statistics and Scientific Computing

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EDUCATION

Date	Degree	Institution	Department
Ongoing	Bachelor	University of Campinas	Applied mathematics
12/2017	High school	Technical school of Campinas	-

PROFESSIONAL EXPERIENCE

Period	Company	Area	Role	Activities
07/2021 - 11/2021	Unisoma	Advanced analytics	Intern	Solved supply chain problems with linear programming using AIMMS

SKILLS

Julia	●●●●●●●●
C	●●●●●●●●
Matlab	●●●●●●●●
Git and Github	●●●●●●●●
Python	●●●●●●●●
SQL	●●●●●●●●
AIMMS	●●●●●●●●
VBA	●●●●●●●●

AREAS OF EXPERTISE

- Optimization
- Operational research
- Matrix computations & numerical simulations
- Functional analysis
- Radiotherapy planning

LANGUAGES

Idiom	Proficiency level	Certificate
Portuguese	Native	-
English	C2	EF SET ¹
Spanish	A2	-

CONFERENCE ABSTRACTS ²

- [3] Vincius Jameli Cabrera and Aurelio Ribeiro Leite de Oliveira. “Planning IMRT with MLC: a linear approach with elastic constraints”. In: *XXIX Scientific Initiation Congress of UNICAMP*. Campinas, Brazil: Galoá, Nov. 2021.
- [2] Vincius Jameli Cabrera and Aurelio Ribeiro Leite de Oliveira. “Optimization of external beam radiation therapy”. In: *Digital proceedings of the 4° Biomathematics Meeting*. Rio de Janeiro, Brazil, Apr. 2022.
- [1] Vincius Jameli Cabrera and Aurelio Ribeiro Leite de Oliveira. “Optimization of external beam radiation therapy”. In: *EURO 2022 Conference Handbook and Abstracts*. ESPOO, Finland, July 2022.

CONFERENCE ABSTRACTS IN PUBLISHING PROCESS

- [2] Vincius Jameli Cabrera and Aurelio Ribeiro Leite de Oliveira. “Optimization of external beam radiation therapy”. In: *Proceeding Series of the Brazilian Society of Computational and Applied Mathematics*. Vol. 9. Campinas, Brazil, Sept. 2022.

¹Link for the certificate <https://www.efset.org/cert/paTvgp>

²Same project presented in different conferences, in different stages of development.

- [1] Vincius Jameli Cabrera and Aurelio Ribeiro Leite de Oliveira. “Optimization of external beam radiation therapy”. In: *XXX Scientific Initiation Congress of UNICAMP*. Campinas, Brazil, Oct. 2022.

PRESENTATIONS

- [2] Vincius Jameli Cabrera and Aurelio Ribeiro Leite de Oliveira. *Optimization of external beam radiation therapy*. 3^o Optimization Workshop. Botucatu, Brazil, Aug. 2022.
- [1] Vincius Jameli Cabrera and Aurelio Ribeiro Leite de Oliveira. *Optimization of external beam radiation therapy*. Applied Mathematics Week (SEMAP). Campinas, Brazil, Aug. 2022.

ONGOING PROJECTS

Title	Participants
<i>Heuristics for direct aperture optimization in Intensity modulated radiotherapy treatment: a systematic literature review</i>	Mauricio Moyano, Vinicius Jameli, Keiny Meza, Gonzalo Tello, and Guillermo Cabrera-Guerrero
<i>Predictor-corrector interior-point algorithm for the fluence map optimization problem</i>	Vinicius Jameli Cabrera and Aurelio Ribeiro Leite de Oliveira

AWARDS

Year	Award title	Awarded by	Terms of award
2022	Best scientific initiation	Institute of Mathematics, Statistics and Scientific Computing	Received by the best scientific initiation project presented in the first semester of 2022
2022	Conference travel grant	Institute of Mathematics, Statistics and Scientific Computing	Travel support for a conference in Finland
2022	Conference travel grant	Institute of Mathematics, Statistics and Scientific Computing	Travel support for a conference in Rio de Janeiro
2022	Conference travel grant	National Council for Scientific and Technological Development	Travel support for a conference in Botucatu
2020-2022	Research grant	National Council for Scientific and Technological Development	Research grant for scientific initiation projects
2017	Golden medal	Association Internationale Mathématiques sans Frontières.	Received at the International Olympics Mathématiques sans Frontières
2014	Silver medal	Brazilian Astronomical Society	Received at the 17 ^o Brazilian Astronomy and Astronautics Olympiad

OUTSTANDING COURSES

Year	Institution	Course
2017 - 2018	Albert Einstein Israel Teaching and Research Institute	Neuroscience course

COMMENTS

Please visit my Github profile for more details on my research and my Researchgate for pre-prints and reports.