### CONTACT INFORMATION

Federal University of São Paulo

Department of Science and Technology

São José dos Campos, SP, Brazil 12247-014

tmacedo@unifesp.br
www.ict.unifesp.br/tmacedo

Citizenship: Brazilian

### ACADEMIC APPOINTMENTS

• Assistant Professor of Mathematics.

June 2014 - present.

Federal University of São Paulo, São José dos Campos.

o Post-doctoral Fellow.

September 2015 - July 2016.

University of Ottawa.

• Assistant Professor of Mathematics.

November 2013 - June 2014.

Federal University of Goiás, Catalão.

• Visiting Graduate Student.

August 2010 - June 2011.

University of Georgia.

#### **EDUCATION**

 $\circ\,$  Ph. D. in Mathematics. State University of Campinas.

June 2013.

Advisor: Adriano Moura (Unicamp), Co-advisor: Daniel Nakano (UGA).

Thesis title: Characters and cohomology of modules for affine Kac-Moody algebras and generalizations.

 $\circ\,$  M. S. in Mathematics. State University of Campinas.

February 2009.

Advisor: Adriano Moura (Unicamp), Co-advisor: Marcos Jardim (Unicamp).

Thesis title: Algebraic groups and hyperalgebras.

o B. A. in Mathematics. State University of Campinas.

December 2006.

## **GRANTS**

Post-doctoral grant. National Council for Scientific and Technological Development (CNPq).
 University of Ottawa. September 2015 - July 2016.

- CNPq Research grant.
   Grant number 462315/2014-2. December 2014 present.
- Goiás Research Foundation (FAPEG) grant for events.
   III Workshop de Álgebra da UFG-CAC. October 2014.
- FAPEG grant for events.
   II Workshop de Álgebra da UFG-CAC. April 2014.
- Ph. D. grant. São Paulo Research Foundation (FAPESP).
   June 2009 June 2013.
- Ph. D. grant. Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES).
   March 2009 May 2009.
- M. S. grant. CNPq.October 2008 February 2009.
- M. S. grant. CAPES.
   March 2006 September 2008.
- Undergraduate Research Program. CNPq.
   August 2004 July 2005.

#### RESEARCH

- Representation theory of Lie algebras, Lie superalgebras and algebraic groups.
- Homological methods applied to representation theory.

### **PUBLICATIONS**

- Weyl modules and Weyl functors for Lie superalgebras.
  - ArXiv: 1611.06349 [math.RT]. Joint work with I. Bagci and L. Calixto.
- Irreducible modules for equivariant map superalgebras and their extensions. ArXiv:1604.01622 [math.RT]. Joint work with L. Calixto.
- o Invariant polynomials on truncated multicurrent algebras.
  - J. Pure Appl. Algebra. **223** (2019), no. 1, 349–368. Joint work with A. Savage.
- Automorphisms of Ideals of Polynomial Rings.
  - B. Braz. Math. Soc., New Series. 49 (2018), no. 1, 1–15. Joint work with T. C. de Mello.

- o On Demazure and local Weyl modules for affine hyperalgebras.

  Pacific J. Math. **274** (2015), no. 2, 257–303. Joint work with A. Bianchi and A. Moura.
- Second cohomology for finite groups of Lie type.
  - J. Algebra 360 (2012), 21–52. Joint work with the UGA VIGRE Algebra Group.
- Extensions for Generalized Current Algebras. ArXiv:1511.00024 [math.RT]. Joint work with B. Boe, C. Drupieski and D. Nakano.

## TEACHING EXPERIENCE

0	Federal University of São Paulo:	
	Analytic Geometry for Science and technology majors.	August - December, 2018.
	Point-set Topology for Masters in pure and applied math.	August - December, 2018.
	Multivariable Calculus for Science and technology majors.	March - July, 2018.
	Abstract Algebra for Science and technology majors.	August - December, 2017.
	Abstract Algebra for Masters in applied math.	August - December, 2017.
	Linear Algebra for Science and technology majors.	March - July, 2017.
	Analytic Geometry for Science and technology majors.	August - December, 2016.
	Geometry for Mathematics Education master students.	September - December, 2016.
	Linear algebra for Science and technology majors.	February - July, 2015.
	Multivariable calculus for Science and Technology majors.	August - December, 2014.
	Numerical calculus for Science and Technology majors.	August - December, 2014.
0	Federal University of Goiás:	
	$\label{eq:Multivariable calculus for Mathematics Education majors.}$	March - June, 2014.
	Introduction to category theory.	March - June, 2014.
	Linear algebra for Industrial Mathematics majors.	March - June, 2014.
	Numerical calculus for Science and Engineering majors.	Nov. 2013 - Feb. 2014.
	Multivariable calculus for Science and Engineering majors.	Nov. 2013 - Feb. 2014.
0	Tutor and Teaching assistant at Unicamp:	
	Linear algebra for Science and Engineering majors.	August - December, 2012.
	Tutor under the supervision of Dr. Adriano Moura.	
	Calculus I for Science and Engineering majors.	March - July, 2012.

Teaching Assistant for Dr. Hyun Mo Yang and Salvador Vega.

Linear algebra for Mathematics and Physics majors.

Tutor under the supervision of Dr. Adriano Moura.

Complex analysis for Mathematics and Physics majors.

March - June, 2006.

Tutor under the supervision of Dr. Benjamin Bordin.

## SERVICE

Search committee for Pure and Applied Math major cadidates.
 Federal University of São Paulo.
 April 2017 - present.

Representative in the Graduate Studies and Research Committee.
 Federal University of São Paulo.
 April 2015 - August 2015.

Organizer of Mathematical Café.
 Federal University of São Paulo.

February 2015 - August 2015.

Organizer of High School Teachers Perfectioning Program (PAPMEM).
 Federal University of São Paulo.
 July 2015.

Organizer of III Workshop de Álgebra da UFG-CAC.
 Federal University of Goiás. Partially supported by FAPEG.
 October 2014.

Co-advisor to Geise Kelly da Silva Santos for Undergraduate Senior Thesis.
 Federal University of Goiás.
 July 2014.

Search committee for temporary professors.
 Federal University of Goiás.

February 2014 and May 2014.

Organizer of II Workshop de Álgebra da UFG-CAC.
 Federal University of Goiás. Partially supported by FAPEG.
 April 2014.

Organizer of PAPMEM (High School Teachers Perfectioning Program).
 Federal University of Goiás.
 January 2014.

Organizer of I Workshop de Álgebra da UFG-CAC.
 Federal University of Goiás. Partially supported by FAPEG.
 November 2013.

 $\circ$  Graduate Student Ombudsman to the Mathematics Graduate Committee.  $\mbox{IMECC - Unicamp.} \qquad \qquad \mbox{May 2012 - May 2013.}$ 

Organizer of VII Graduate Students Meeting at IMECC.
 Partially supported by CAPES grant PAEP-948/2012.
 September 2012.

Organizer of Graduate students seminar.
 IMECC - Unicamp.

Fall 2009, Spring 2010 and Fall 2011.

# Talks, Poster Presentations and Short Courses

- Weyl modules for map Lie superalgebras. Talk.
   11th International conference on Clifford Algebras and Their Applications in Mathematical Physics. Ghent University, Belgium.

  August, 2017.
- Introduction to spectral sequences. Short course.
   Summer program Algebra Workshop. UFMG, Brazil.
   February 2017.
- Extensions for generalized current algebras. Talk.
   24th Brazilian Algebra Meeting. Diamantina, Brazil.
   August 2016.
- Automorphisms of ideals of polynomial rings. Talk.
   Hopf Algebras, Algebraic Groups and Related Structures. Newfoundland.
   June 2016.
- Demazure and local Weyl modules for hyper current algebras. Talk.
   Spring Southeastern AMS Sectional Meeting. University of Georgia.
   March 2016.
- Extensions for current algebras. Seminar talk.
   Algebra Seminar. University of Ottawa.
   September 2015.
- Cohomologies of current algebras. Seminar talk.
   Algebra Seminar. University of Georgia.
   February 2015.
- Characters of certain finite-dimensional modules for hyper current algebras. Talk.
   I Brazilian Congress of Young Researchers in Pure and Applied Math. December 2014.
- Lie algebras and finite-dimensional modules in positive characteristic. Seminar talk.
   Weekly Applied Math Seminar. Federal University of São Paulo.
   September 2014.
- An introduction to algebras. Seminar talk.
   Weekly Algebra Seminar. Federal University of Goiás.
   May 2014.
- Characters of modules for hyper current algebras. Poster presentation.
   Symmetries in Mathematics and Physics II.
   June 2013.
- Flag varieties and representation theory. Short course.
   VI Brazilian Mathematical Society Biennial.
   December 2012.

Last update: October 5, 2018