Cristiano Rodrigues de Mattos
CNPq Researcher - Level 1C
ORCID: https://orcid.org/0000-0001-5927-8742

Cristiano Mattos holds a degree in Physics from the Federal University of Rio de Janeiro, a master's degree in Science Teaching focusing on Physics History and Epistemology, and a PhD in Physics specializing in Artificial Cognitive Systems from the University of São Paulo. He has a Habilitation from the University of São Paulo, is an Associate Professor at the Institute of Physics and is the leader of the Research Group on Education in Science and Complexity (ECCo). His research is rooted in the theoretical-methodological framework of Historical-Cultural Theory of Activity, approached from a Freirean perspective. Through this lens, he designs science teaching activities to promote emancipatory and democratic education, aiming for social and economic equity. Within Science Education, his work delves into the philosophical and psychological underpinnings of teaching and learning processes, focusing on topics such as the relationship between Activity and consciousness, situated cognition, teaching-learning of scientific and quotidian concepts, models of dialogic interaction, complexification of concepts, and curriculum development. Prior to his academic career, Mattos was an educator in basic education for several years, teaching at both primary and secondary levels. He also served as an editor for science and mathematics textbooks, participated in the National Textbook Evaluation Program as an evaluator and coordinator, and was responsible editor for the Brazilian Journal of Research in Science Education. Currently, he is a full member of the Council of the Brazilian Physics Society and the IUPAP Physics Teaching Commission (C14 Commission).

Professional Adress

Associate Professor
University of Sao Paulo, Institute of Physics, Department of Applied Physics.
Rua do Matão 1371, Butantã, 05508090 - São Paulo, SP - Brazil
Telefone: +55 11 30917077
URL da Homepage: http://www.if.usp.br

Research lines

Cultural Historical Activity Theory, Science teaching and learning; Complexity; Interdisciplinarity; Physics teacher education; Textbook history and evaluation.

Academic Graduation

Habilitation in Physics Education - 2019
University of Sao Paulo, USP, Brazil.
Thesis: Racionalidades na Educação Científica (Rationalities in Scientific Education)
Keywords: Rationality; Concepts Teaching-Learning; Activity Theory; Complex Conceptual Profile; Complexity; Science teaching.

PhD in Physics - 1998
University of Sao Paulo, Institute of Physics, Brazil.
Title: Statistical Mechanics Applications to Binary Perceptron and Image Processing.
Keywords: Neural Networks; Learning Algorithm; Binary Perceptron; Optimization; Image processing; Low Temperature Expansion.

Master's in Physics Eduaction -1991
University of Sao Paulo, Institute of Physics, Brazil.
Title: Entering the Era of Entropy Teaching.
Keywords: Physics Teaching; thermodynamics; history of science; Epistemology of Physics; Entropy.

Degree in Physics -1987
Federal University of Rio de Janeiro, UFRJ, Brazil.

Pós-Doutorado - 2000
University of Sao Paulo, USP, Brazil.

Professional Activity

Associate Professor (2005 – Current)
University of Sao Paulo, Institute of Physics, Brazil

Visiting Professor (2013)
University of Helsinki, Finland, Institute of Behavioural Sciences Educational Sciences.

Visiting Lecture (2012)
University of Helsinki, Finland, Center for Research on Activity, Development and Learning (CRADLE).

Assistant Professor (1997-2005)
São Paulo State University, UNESP, Brazil, Department of Physics and Chemistry.

Board Member (2021 – Atual)
Brazilian Physics Society, SBF, Brazil

SBF Representative Physics Education Commission, C14 Member (2021 – 2027)
International Union of Pure and Applied Physics (IUPAP), Commission 14 – Physics Education

Senior Science and Mathematical Editor (2001-2004)
Scipione Publish House Ltda., Brazil.

Researcher C1 CNPq (2007-2027)
Conselho Nacional de Desenvolvimento Científico e Tecnológico, Brazil.

Responsible editor (2010-2015)
Brazilian Journal of Research in Science Education, Brazil.

Research Project

2022 – Current
Title: Ressignificando parcerias universidade-escolas para desenvolvimento de estágio supervisionado: referências para a construção de um trabalho colaborativo. (Reframing university-school partnerships for the development of supervised internships: references for building collaborative work) (Member)
Funder: São Paulo State Research Support Foundation (#2018/16585-1).

2019 - 2023
Title: Os modos acoplados de aprender a ser professor e supervisor nas atividades do estágio supervisionado, do Pibid e da Residência Pedagógica. (The coupled ways of learning to be a teacher and supervisor in the activities of supervised internship, Pibid and Pedagogical Residency) (Coordinator)
Funder: National Council for Scientific and Technological Development (CNPq), Brazil

2019 - 2023
Title: Enriching teaching and fostering student participation through dialogue: On the role of talk in public school classrooms. (Member)
Funder: Columbia University, Teachers College, USA.

2016 - 2020
Title: Aproximações entre atividade e gêneros discursivo para a compreensão do ensino-aprendizagem de modos-de-ser-científico. (Approaches between activity and discursive genres for understanding the teaching-learning of ways-of-being-scientific) (Coordinator)
Funder: National Council for Scientific and Technological Development (CNPq), Brazil

Extension projects

2017 - Atual
Title: Desenvolvendo Inovações curriculares na educação básica. (Developing curricular innovations in basic education) (Coordinator)
Description: The development of communities of practice for teachers involved in producing curricular reformulations and generating school knowledge.
Funder: National Council for Scientific and Technological Development (CNPq), Brazil

Editorial board member

2020 – Current: Revista Int. de Pesquisa em Didática das Ciências e Matemática
2018 – Current: Revista Brasileira da Pesquisa Sócio-Histórico-Cultural e da Atividade
2022 – Current: Revista Brasileira de Pesquisa em Educação em Ciências
2007 – Current: Caderno Brasileiro de Ensino de Física

Journal reviewer

2023 - 2024: Science & Education
2020 - Current: Educação: Teoria e Prática
2012 - 2013: Mind, Culture and Activity
2009 - Current: Enseñanza de las Ciencias

2008 - Current: Alexandria (1982-5153)
2007 - Current: Revista Brasileira de Pesquisa em Educação em Ciências
2007 - Current: Ensaio. Pesquisa em Educação em Ciências
2007 - Current: Caderno Brasileiro de Ensino de Física
2006 - Current: Investigações em Ensino de Ciências (UFRGS)
2004 - Current: Caderno Catarinense de Ensino de Física
2000 - Current: Ciência e Educação

Languages

Portuguese: understands well, speaks well, reads well, writes well.
English: understands well, speaks well, reads well, writes reasonably.
French: understands reasonably, speaks little, reads reasonably, writes little.
Spanish: understands well, speaks reasonably, reads well, writes little.
Italian: understands well, speaks little, reads well, writes little.

Bibliographic productions (last 5 years)

Articles published in journals

- Lopez, F.S., & Mattos, C.R. (2024). Science Education in the USA During the Cold War. **Science & Education**, 33, 1-18.
- Lago, L.G., Camillo, J., & Mattos, C.R. (2023). Challenges in school-based teacher professional development: building learning communities and capturing classroom dialogue. **Gláuks**, 22, 99-123.
- Santiago, A., & Mattos, C.R. (2023). From classroom education to remote emergency education: transformations in a dialogical pedagogy proposal. **Dialogic Pedagogy: An International**, 11, DT1-DT21.
- Lago, L.G., Mattos, C.R., & Camillo, J. (2023). Lua selvagem e domesticada: a formação de conceitos em diferentes contextos com base na teoria cultural-histórica da atividade. **Investigações em ensino de ciências** (online), 28, 149-168.
- Mattos, C.R., Lopez, F.S., Ortega, J.L., & Rodrigues, A.M. (2022). The public discussion on Flat Earth movement: an analysis based on the Esperantist-Epideictic discourse. **Science & Education**, OLF, 1-23.
- Camillo, J., Lago, L.G., & Mattos, C.R. (2022). Monological education and pandemic: the return of those who never went. **Revista Brasileira de Ensino de Ciência e Tecnologia**, 1, 100-117.
- Sodré, F.C.R., & Mattos, C.R. (2022). Preservice Physics Teachers' Conceptual Profile of Time. **International Journal of Research in** Education and Science, 8, 451-470.
- Rabelo, L.O., Mattos, C.R., & Abib, M.L.V.S. (2022). Beginning a teaching career: Contradictions and alienations. Teachin**g and Teacher Education**, 119, 103872.
- Dias, R.A., Rios de Paula, M., Silva Rocha Rizol, P.M., Matelli, J.A., Rodrigues de Mattos, C., & Perrella Balestieri, J.A. (2021). Energy education: Reflections over the last fifteen years. **Renewable & Sustainable Energy Reviews**, 141, 110845.
- Lago, L., & Mattos, C.R. (2021). Bridging Concept and Activity: a Dialectical Synthesis Proposal. **Cultural-Historical Psychology**, 17, 29-36.

- Villani, A., Mattos, C., Martins, I., Sasserón, L.H., Justi, R., & Selles, S. (2021). Editorial Comemorativo dos 20 anos da RBPEC. **Revista Brasileira de Pesquisa em Educação em Ciências**, 21, e35017.
- Lopez, F.S., Ortega, J.L.N.A., & Mattos, C.R. (2021). What is in Common between Affirmative and Denialist Discourses about Science?. **IOSTE Letters**, 1, 327-335.
- Lago, L.G., Ortega, J.L.N.A., & Mattos, C.R. (2020). O modelo genético e o movimento dinâmico entre abstrato e concreto como instrumentos para o planejamento de sequências didáticas para o ensino de ciências. **Alexandria** (UFSC), 13, 123-153.
- Lopez, F.S., Ortega, J.L.N.A., & Mattos, C.R. (2020). Ensino de ciências como controle do estado: o caso da Alemanha nazista. **Ensaio**: pesquisa em educação em ciências (online), 22, 1-26.

Book chapters

- Mattos, C.R. & Rodrigues, A. M. (2024). The onto-epistemological dimension of knowledge and interaction within excessive teacher entitlement: a cultural-historical activity theory perspective. In T. Ratnam (Eds.), **After Excessive Teacher and Faculty Entitlement**: Expanding the Space for Healing and Human Flourishing Through Ideological Becoming. Advancements in Research on Teaching, (Vol. 47). Leeds: Emerald Publishing Ltd. (*in press*)
- Camillo, J., Rodrigues, A. M., & Mattos, C. R. (2024). Thinking with Cultural-Historical Activity Theory: Examining Science Education Key Issues. In A. Levant, K. Murakami, & M. McSweeney (Eds.), **Activity Theory**: An Introduction (Vol. 1, pp. 275-294). Stuttgart: ibidem-Verlag.
- Rodrigues, A. M., Camillo, J., & Mattos, C. R. (2023). STEM and Its Roots and Branches: Critical Reflections from Cultural-Historical Activity Theory. In K. Plakitsi & S. Barma (Eds.), **Sociocultural Explorations of Science Education** (Vol. 1, pp. 3-17). Springer International Publishing.
- Silva, G. S. F., dos Santos, G. G., Rodrigues, J. M., de Melo, T. B., & Mattos, C. R. (2023). Graph Analysis of an Expanded Co-teaching Activity in the Context of Physics Teacher Education. In K. Plakitsi & S. Barma (Eds.), **Sociocultural Explorations of Science Education** (Vol. 1, pp. 207-230). Springer International Publishing.
- Mattos, C. R. (2023). Currículo como sistema mediador complexo e dinâmico. In J. R. L. Almeida, F. Ramuno, L. Leigue, & C. O. Zambrana (Eds.), **Currículo e Contexto**: aproximações (Vol. 1, pp. 57-68). São Paulo: Harbra/Cole´gio Bandeirantes.
- Mattos, C. R. (2019). A reflection on research-based alternatives of physics teaching on educational activity system. In M. Pietrocola (Ed.), **Upgrading Physics Education to Meet the Needs of Society** (Vol. 1, pp. 276-285). Cham: Springer International Publishing.

Full papers published in conference proceedings

- Mattos, C.R.; Rodrigues, A.M. The Physics teachers' formation and the curriculum reforms in Brazil. GIREP-EPEC 2023
- Ribeiro, D. F. B. ; Jacinto, C. A. ; Mattos, C.R. Ensino de física inclusivo bilíngue na licenciatura: orientação de estágio supervisionado para uma surda. In: XIX Encontro de Pesquisa em Ensino de Física, 2022, Belo Horizonte. **Proceedings XIX EPEF 2022**. São Paulo: Sociedade Brasileira de Física, 2022. v. 1. p. 1-8.
- Montbeller, A.; Ortega, J.L.; Sodré, F.C.R. ; Mattos, C.R. . Física e rapel: uma proposta de investigação científico-cultural no ensino de física. In: XIX Encontro de Pesquisa em Ensino

de Física, 2022, Belo Horizonte. **Proceedings XIX EPEF 2022**. São Paulo: Sociedade Brazilseira de Física, 2022. v. 1. p. 1-8.

- Lago, L.G.; Mattos, C.R. Lua na escola: o conhecimento selvagem e o conhecimento domesticado. In: VI Simpósio Nacional de Educação em Astronomia (SNEA), 2022, **e-Proceedings VI SNEA**, Bauru (https://www.even3.com.br/snea2020/). São Paulo: Sciedade Brasileira de Astronomia, 2022. v. 1. p. 1-9.
- Lopez, F.S.; Farias Junior, W.N. S.; Mattos, C.R. Esperantismo: uma discussão sobre os argumentos de terraplanistas e terraesfericistas. In: XVIII Encontro de Pesquisa em Ensino de Física, 2020, Florianópolis. **Proceedings of XVIII EPEF**. São Paulo: SBF, 2020. v. 1. p. 1-8.
- Santos, G. G. ; Melo, T. B. ; Silva, G.S.F. ; Mattos, C.R. . O uso de grafos para análise da codocência no contexto da prática de ensino física. In: XVIII Encontro de Pesquisa em Ensino de Física, 2020, Florianópolis. **Proceedings of XVIII EPEF**. São Paulo: SBF, 2020. v. 1. p. 1-8.
- Santiago, A. V. R. ; Mattos, C.R. Uma abordagem freireana no ensino superior: o ensino de física problematizado. In: XVIII Encontro de Pesquisa em Ensino de Física, 2020, Florianópolis. **Proceedings of XVIII EPEF**. São Paulo: SBF, 2020. v. 1. p. 1-8.
- Sodré, F.C.R.; Ortega, J.L.; Zen, P. ; Mattos, C.R. . Perspectivas Científico-Culturais no ensino de física: a construção de uma disciplina eletiva de física médica. In: XVIII Encontro de Pesquisa em Ensino de Física, 2020, Florianópolis. **Proceedings of XVIII EPEF**. São Paulo: SBF, 2020. v. 1. p. 1-8.

Participation in events, congresses, exhibitions and fairs

- Europhysics Conference of International Research Group on Physics Teaching (GIREP-EPEC).**The Physics teachers' formation and the curriculum reforms in Brazil**, Košice (Slovakia), 2023. (Invited Symposium).
- III Reunião Nacional do Mestrado Nacional Profissional em Ensino de Física. **Ensino de Física, Física e Credibilidade Social: algumas relações** (Teaching Physics, Physics and Social Credibility: some relationships), Brasília, (Brazil) 2023. (Invited Speaker).
- XV Conferencia Interamericana de Educación en Física. **La formación en Física para la credibilidad social**. 2023. (Invited Speaker).
- Currículo: Contextos e Aproximações. **Currículo como Sistema Complexo e Dinâmico** (Curriculum as a Complex and Dynamic System), 2023. (Invited Speaker).
- XX International Organization for Science and Technology Education (IOSTE) Symposium. **Between authoritarianism and denialism**: is there a place for critical science education?, 2022. (Keynote Speaker).
- 16th Biennal IHPST Conference. **The Public Discussion on Flat Earth Movement: An Analysis Based on the Esperantist-Epideidtic Discourse**. Calgary (Canada), 2022. (participant).
- 2022 American Educational Research Association Meeting. **Dialogue and dialogic teaching in teachers` voices**. San Diego, (USA), 2022. (participant).
- SIEF16 - 16°Simposio de Investigación en Educación en Física. **Ejemplos históricos de relaciones entre el Estado y la Enseñanza de las Ciencias** (Historical examples of relationships between the State and Science Education). Buenos Aires (Argentina), 2022. (Invited Speaker).
- VPCT2022 - A voz dos professores de Ciência & Tecnologia. **Exemplos históricos de relações entre Estado e Ensino de Ciências** (Historical examples of relations between the State and Science Education), Vila Real (Portugual), 2022. (Invited Speaker).

- XIX Encontro de Pesquisa em Ensino de Física. **Ensino de física inclusivo bilíngue na licenciatura: orientação de estágio supervisionado para uma surda** (Inclusive bilingual physics teaching in undergraduate courses: supervised internship guidance for a deaf Woman). Online, 2022. (Participant).
- 3rd World Conference in Physics Education. **The public discussion on scientific truth: the case of Esperantist- Epideictic discourse on Flat Earth**. Hanoi (Vietnam), Online, 2021. (participant).
- 6th Congress of the International Society for Cultural-historical Activity Research. **Science Education facing social and political crises**. Natal (Brazil), Online, 2021. (Participant).
- Freire and Vygotsky International Congress: Emancipatory Public Education. Roud Table Learning and Development. **Vigostsky e Freire se encontram na escola** (Vygotsky and Freire meet at school), Florianópolis (Brazil), online, 2021. (Invited Speaker).
- I Simpósio sobre Codocência e Docência Compartilhada. **Codocência e Docência Compartilhada: conceitos complexos** (Co-teaching and Shared Teaching: complex concepts), Rio de Janeiro (Brazil), online, 2021. (Invited Speaker).
- ISCAR PreConference Workshop. **Sociocultural approaches to STEM.STEM: reflections on roots and branches**. Online, 2021. (Invited Workshop).
- XIX Symposium of the International Organization for Science and Technology Education. **Physics Teacher Education and Co-teaching: Graph Analysis of a Student Teacher?s Placement**. Online, 2021. (participant).
- XXII Reunión de Educación en Física. Mesa redonda: Diálogo sobre Investigación en Educación en Física (Round table: Dialogue on Research in Education in Physics). Online, 2021. (Invited Speaker).

Current supervisions

Masters

- *Ana Karine Vieira Costa*. Relationships between supra-curricula and macro-curricula: an analysis of the influences of PISA on BNCC with a focus on Sciences. Master in Science Teaching, University of Sao Paulo. (Advisor).
- Alberto Hoshino Komoguchi. The concept of interdisciplinarity in PNLD-approved Physics textbooks. Master in Science Teaching, University of Sao Paulo. (Advisor).
- *Lais de Oliveira Borges*. Relationships between Physics and Art: STEAM. Master in Science Teaching, University of Sao Paulo. (Advisor).
- *Claudemir Batista dos Santos*. Teaching Physics in Cuba in the 1960s. Master in Science Teaching, University of Sao Paulo. (Advisor).
- Danilo Prado Ramos. Science teaching in an unequal world: a reflection on the foundations of educational equity. Master in Science Teaching, University of Sao Paulo. (Advisor).

Doctoral thesis

- *Danila Ribeiro Gomes*. Physics Teaching, Curriculum and Inclusion: overcoming the contradiction between what is essential and possible. Doctorate in Science Teaching, University of Sao Paulo. (Advisor).
- *Mauritz Gregorio de Vries*. Will high school curriculum reforms alienate teaching natural sciences? Doctorate in Science Teaching, University of Sao Paulo. (Advisor).

- *Renata Vasconcelos Alves Silveira*. Mobilizing teaching practice elements and science teachers' meanings in the São Paulo state network. Doctorate in Science Teaching, University of Sao Paulo. (Advisor).
- *Tamara Aluani*. Between theory, discourse and curriculum praxis: a contribution from activity theory to curriculum theory. Doctorate in Science Teaching, University of Sao Paulo. (Advisor).
- *Felipe Sanches Lopez*. The relationships between Educational and Scientific Policies determining innovations in scientific education: the case of the PSSC. Doctorate in Science Teaching, University of Sao Paulo. (Advisor).

Finished supervisions

Master

- *Débora Pallone Dias*. Initial propositions on the concept of performance-activity: a theoretical reflection. 2019. Master in Science Teaching, University of Sao Paulo. (Advisor).
- *Gabriela Siqueira de Paula Souza*. Scale-UP: a case study. 2019. Master's in Science Teaching, University of Sao Paulo. (Advisor).
- *Fernanda Alexandrina Queiroz Gomes*. The role of experiment in learning modern physics during the Masterclass activity. 2018. Master in Science Teaching, University of Sao Paulo. (Advisor).
- *Danila Ribeiro*. Understanding of Physics Teachers receiving supervised internships about the role of secondary school in initial training. 2016. Master in Science Teaching, University of Sao Paulo. (Advisor).
- *Leonardo Gonçalves Lago*. Moon: phases and facets of a concept. 2013. Master in Science Teaching, University of Sao Paulo. (Advisor).
- *José Luís Nami Adum Ortega*. Gap and enunciation in Physics teaching: when Physics is magic. 2012. Master in Science Teaching, University of Sao Paulo. (Advisor).
- *Luciani Bueno Tavares*. Activity Theory as school analysis tools: The case of EMAE. 2012. Master's in Science Teaching, University of Sao Paulo. (Advisor).
- *Felipe Prado Pazello dos Santos*. The concept of generalization: exploring the limits of the conceptual profile model. 2011. Master in Science Teaching, University of Sao Paulo. (Advisor).
- *Juliano Camillo*. Experiences in context: experimental activities from a society perspective history. 2011. Master's in Science Teaching, University of Sao Paulo. (Advisor).
- *Jackelini Dalri*. The axiological dimension of the conceptual profile. 2010. 0 f. Master's in Science Teaching, University of Sao Paulo. (Advisor).
- *André Machado Rodrigues*. Resizing the notion of learning in the relationships between conceptual profile and context: a socio-cultural-historical approach. 2009. Master's in Science Teaching, University of Sao Paulo. (Advisor).
- *Esdras Viggiano de Souza*. The conceptual profiles of teaching, learning and teaching-learning of physics undergraduates. 2008. Master's in Science Teaching, University of Sao Paulo. (Advisor).
- *Roberto Bovo Nicioli Junior*. Cinematics and the History of the Textbook. 2007. Master's in Science Teaching, University of Sao Paulo. (Advisor).
- *Patricia Weishaupt Bastos*. Physics teaching for auditory discrimination. 2007. Master's in Science Teaching, University of Sao Paulo. (Advisor).

- *Fernanda Cavaliere Ribeiro Sodré*. Interdisciplinarity: Physics of Food. 2005. 0 f. Master's in Science Teaching, University of Sao Paulo. (Advisor).
- *Francisco Mendes*. Virtual and in-person learning environments: a dialogical interaction mediated by chat. 2003. Master's in Science Teaching, State University of Sao Paulo. (Advisor).

Doctorate

- *Roger Magalhães Da Silva*. Initial relationships between Activity Theory and the Freirean educational perspective: propositions for promoting potential activities in science teaching. 2023. Doctorate in Science Teaching, University of Sao Paulo. (Advisor).
- *José Luis Nami Adum Ortega*. Contributions to theory and practice in physics teaching from a genre-activity perspective. 2019. Doctorate in Science Teaching, University of Sao Paulo. (Advisor).
- *Arthur Vinicius Resek Santiago*. Proposition for a disturbance in the network of activities through a Freirean intervention in a teacher training course. 2019. Doctorate in Science Teaching, University of Sao Paulo. (Advisor).
- *Esdras Viggiano de Souza*. The concept of energy in the official Brazilian curriculum for high school from 1996 to 2002. 2018. Doctorate in Science Teaching, University of Sao Paulo. (Advisor).
- *Pedro Pablo Geille Oneto y Viana*. Diagnosis of the causes of failure and early student dropout in physics subjects during the initial stage of university education and the final stage of high school in Uruguay. 2017. Doctorate in Science Teaching, University of Sao Paulo. (Advisor).
- *Fernanda Cavaliere Ribeiro Sodré*. A proposal for a conceptual profile of space and time. 2017. Doctorate in Science Teaching, University of Sao Paulo. (Advisor).
- *Juliano Camillo*. Initial contributions to a philosophy of science education. 2015. Doctorate in Science Teaching, University of Sao Paulo. (Advisor).
- *Patricia Weishaupt Bastos*. Science making everyday knowledge more complex: an intervention in public schools. 2011. Doctorate in Science Teaching, University of Sao Paulo. (Advisor).
- *Francisco Amancio Cardoso Mendes*. Physics: a language(s). 2010. Doctorate in Science Teaching, University of Sao Paulo. (Advisor).
- *Andre Machado Rodrigues*. Movement and contradiction: the discipline of practices in physics teaching and the initial training of physics teachers from a historical-cultural perspective. 2010. Doctorate in Science Teaching, University of Sao Paulo. (Advisor).
- *Rubens Alves Dias*. Development of an educational model for Energy Conservation. 2003. 130 f. Doctorate in Engineering Education, State University of Sao Paulo (Advisor).

Postdoc supervision

- *Evaldo Botelho*. (1999-2000) Binary Perceptron limits. São Paulo State University (Guaratinguetá), Department of Physics and Chemistry, São Paulo, Brazil. (CNPq).