

# DANIELA CASSOL, PH.D.

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CONTACT INFORMATION	Advanced Analytics, DOE Joint Genome Institute 1 Cyclotron Road, Lawrence Berkeley National Lab, Berkeley, California, 94720	<i>e-mail:</i> <a href="mailto:danicassol@gmail.com">danicassol@gmail.com</a> <i>Google Scholar</i> <i>Website / GitHub</i>
EDUCATION	<b>Ph.D., Biological Sciences - Genetics</b> 2012–2016 – Federal University of Rio de Janeiro, Brazil <b>M.S., Plant Physiology</b> 2010–2012 – Federal University of Viçosa, Brazil <b>B.S., Biological Sciences and Teaching credentials in Biology</b> 2005–2010 – Federal University of Pelotas, Brazil	
POSTDOCTORAL TRAINING	<b>Postdoctoral Research Fellow</b> 2017–2022 – University of California, Riverside, USA	
PROFESSIONAL APPOINTMENT	<ul style="list-style-type: none"><li>• <b>Product Owner – JAWS</b> 2022–Present – DOE Joint Genome Institute, Lawrence Berkeley National Lab Leading cross-functional planning and delivery of user-centered scientific workflows and tools across DOE national labs. As Product Owner, responsible for JAWS development strategy, user engagement, roadmap execution, and inter-lab coordination.</li><li>• <b>Visiting Researcher</b> 2019–Present – Federal University of Espírito Santo, São Mateus, ES, Brazil</li><li>• <b>Postdoctoral Research Fellow</b> 2017–2022 – University of California, Riverside, CA, USA</li><li>• <b>Bioinformatics Analyst</b> 2016–2017 – Biogenetika Diagnóstico Molecular e Medicina Genômica, SC, Brazil</li></ul>	
RESEARCH EXPERIENCE	<ul style="list-style-type: none"><li>• <b>Federal University of Rio de Janeiro, Brazil</b> 2012–2016 – Research Assistant Worked and assisted in a molecular laboratory extracting RNA, performed RT-qPCR, statistics analysis, global gene expression characterization, RNA-Seq sequencing, and bioinformatics analysis.</li><li>• <b>Federal University of Viçosa, Brazil</b> 2010–2012 – Research Assistant The research was focused on "Production, accumulation, and exudation of organic acids on aluminum toxicity in <i>Stylosanthes</i>". Duties included data collection for different physiological analyses in plants exposed to toxic levels of aluminum, gas chromatography, HPLC chromatography, and statistical analysis.</li><li>• <b>Federal University of Espírito Santo, Brazil</b> 2009–2009 – Research Assistant Collected field data on plant physiological processes in the mangrove forest in Brazil. Duties included measuring plant physiological processes using fluorometers and portable photosynthesis equipment.</li><li>• <b>Institute of Botany, São Paulo, Brazil</b> 2007–2007 – Research Assistant Worked in the ecophysiology laboratory and collected field data on tree seedlings as part of a project to preserve the tropical forest. Received training in techniques for environmental preservation and restoration of degraded forests.</li><li>• <b>Federal University of Pelotas, Brazil</b> 2005–2010 – Research Assistant Worked and assisted in different projects focused on understanding the mechanisms of plant</li></ul>	

adaptation under different abiotic stresses. My duties included collecting plant physiological data using fluorometers and portable photosynthesis system equipment and conducting experiments in greenhouses. Other duties included data entry, data analysis, and report writing.

## TEACHING AND MENTORING EXPERIENCE

### Teaching

- **Federal University of Esp rito Santo, Brazil**  
2022 – Developed and lectured course for the Plant Biology Master Program  
Advanced R - Software Development for Plant Physiology
- **BioC 2021: Where Software and Biology Connect, Online**  
2021 – Workshop  
*systemPipe*: Workflow and Visualization Toolkit
- **Federal University of Esp rito Santo, Brazil**  
2020 – Developed and lectured course for the Plant Biology Master Program  
RPP2020 R for Plant Physiologists
- **Association for Women in Science, Riverside, USA**  
2020 – Workshop  
How to build your portfolio online
- **BioC 2019: Where Software and Biology Connect, Toronto, Canada**  
2019 – Workshop  
Common Workflow Language (CWL) workshop
- **Federal University of Viosa, Brazil**  
2011 – Graduate Teaching Assistant  
BIO200 Biophysics
- **Federal Institute of Rio Grande do Sul - Campus Visconde da Graa, Brazil**  
2009 – Teaching Assistant  
I lectured Biology classes for High School students (12th Grade).
- **Dr. Francisco Sim es State Middle School, Brazil**  
2008 – Teaching Assistant  
I lectured Biology classes for students in the Middle School (7th Grade).
- **Federal University of Pelotas, Brazil**  
2006 – Teaching Assistant  
I lectured Biology classes in a program called "Desafio Pr -Vestibular" to students improve their chances to attend college.

### Mentoring

- **Federal University of Esp rito Santo, Brazil**  
Advisees (Co-advisor)
  - Marcel Merlo Mendes, Ph.D. Candidate, Plant Biology (2022 - Present)
  - Lais Da Silva Magevski, Master’s Candidate, Plant Biology (2020 - 2022)
  - Liz Santos Nascimento, Master’s Candidate, Tropical Agriculture (2020 - 2022)
  - Igor Pires, Master’s Candidate, Tropical Agriculture (2020 - 2022)
  - Marcel Merlo Mendes, Master’s Candidate, Tropical Biodiversity (2018 - 2019)
- **University of California Riverside, CA, USA**  
Undergraduate and Graduate Student
  - Le Zhang, Ph.D. Candidate, Genetics, Genomics, and Bioinformatics (2018 - 2022)
  - Shiyuan Guo, Graduate Student, Genetics, Genomics, and Bioinformatics (Rotation Winter and Fall 2020)
  - Ryan Gates, Undergraduate, Biochemistry (2020 - 2021)
  - Ponmathi C. Ramasamy Jayaseelan, Undergraduate, Bioengineering and Biomedical Engineering (2019 - 2020)
  - Gordon David Mosher, Undergraduate, Statistics (2018 - 2022)
  - Cindy Nguyen, Undergraduate, Statistics (2018 - 2019)

- **Federal University of Rio de Janeiro, Brazil**

Undergraduate Research Assistant

- Kauê Espindola, Undergraduate, Agronomy (2012 - 2014)
- Rafaela Fagundes, Undergraduate, Biology (2014 - 2014)
- Moises de Oliveira Santos Junior, Undergraduate, Biology (2013 - 2013)
- Bruna Levy Pestana Fernandes, Undergraduate, Biology (2012 - 2012)

- **Federal University of Viçosa, Brazil**

Undergraduate Research Assistant

- Kauê Espindola, Undergraduate, Agronomy (2010 - 2012)
- Daniel Martins Canossa da Costa, Undergraduate, Agronomy (2011 - 2011)

### Teaching Certification

- Software Carpentry and Data Carpentry. Licensed Instructor, 2021
- University Teaching Certificate, University of California Riverside, 2021

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PEER-REVIEWED  
PUBLICATIONS

- [1] I. D. P. Pereira, S. Dousseau-Arantes, J. A. Machado Filho, L. O. Arantes, M. M. Mendes, V. F. Santos, G. A. R. de Souza, B. Cerri Neto, **D. Cassol**, and A. R. Falqueto, "Evaluating physiological traits of coffea canephora clones intercropped with hevea brasiliensis," *Photosynthetica*, vol. 63, no. 3, pp. 297–308, Oct. 2025.
- [2] M. M. Mendes, I. F. Ribeiro, V. F. D. Santos, F. R. Pires, A. A. Fernandes, L. F. T. D. Menezes, R. Bonomo, **D. Cassol**, J. P. R. Martins, and A. R. Falqueto, "Green manure can be an auxiliary factor against dynamic photoinhibition in *Dalbergia ecastophyllum* (L.) young trees in areas impacted by mining," *Photosynthetica*, Jun. 2025.
- [3] I. Zenzen, **D. Cassol**, P. Westhoff, S. Kopriva, and D. Ristova, "Transcriptional and metabolic profiling of sulfur starvation response in two monocots," *BMC plant biology*, vol. 24, no. 1, p. 257, Apr. 2024.
- [4] M. M. d. Santos, M. G. Oliveira, **D. Cassol**, W. P. Rodrigues, A. R. Falqueto, J. C. Ramalho, and F. L. Partelli, "Genotypic diversity of *Coffea canephora* cv. conilon identified through leaf morpho-and eco-physiological traits," *Scientia horticultrae*, vol. 324, p. 112603, Jan. 2024.
- [5] D. Jardim-Messeder, **D. Cassol**, Y. Souza-Vieira, M. Ehlers Loureiro, T. Girke, M. Boroni, R. Lopes Corrêa, A. Coelho, and G. Sachetto-Martins, "Genome-wide identification of core components of ABA signaling and transcriptome analysis reveals gene circuits involved in castor bean (*Ricinus communis* l.) response to drought," *Gene*, vol. 883, no. 147668, p. 147668, Jul. 2023.
- [6] C. L. Pinheiro, J. B. Zampirolo, M. M. Mendes, V. F. dos Santos, J. P. R. Martins, D. M. Silva, M. M. P. Tognella, **D. Cassol**, and A. R. Falqueto, "Exposition of three *Cattleya* species (orchidaceae) to full sunlight: effect on their physiological plasticity and response to changes in light conditions," *Ornamental Horticulture*, vol. 29, no. 1, pp. 57–67, 2023.
- [7] D. Jardim-Messeder, Y. de Souza-Vieira, L. C. Lavaquial, **D. Cassol**, V. Galhego, G. A. Bastos, T. Felix-Cordeiro, R. L. Corrêa, M. Zámocký, M. Margis-Pinheiro, and G. Sachetto-Martins, "Ascorbate-Glutathione cycle genes families in euphorbiaceae: Characterization and evolutionary analysis," *Biology*, vol. 12, no. 1, Dec. 2022.
- [8] M. Merlo Mendes, A. C. R. Pinheiro, F. Ribeiro Pires, A. Alves Fernandes, L. F. Tavares de Menezes, I. Damasceno Pires Pereira, V. Fonsêca Dos Santos, L. de Almeida Leite, **D. Cassol**, and A. R. Falqueto, "Photosynthesis and leaf traits of tree species influenced by green manure associated with soil treatments," *Communications in soil science and plant analysis*, vol. 53, no. 16, pp. 2064–2081, Sep. 2022.
- [9] G. Torres-Silva, L. N. F. Correia, D. S. Batista, A. D. Koehler, S. V. Resende, E. Romanel, **D. Cassol**, A. M. R. Almeida, S. R. Strickler, C. D. Specht, and W. C. Otoni, "Transcriptome analysis of *Melocactus glaucescens* (cactaceae) reveals metabolic changes during *in vitro* shoot organogenesis induction," *Front. Plant Sci.*, vol. 12, p. 697556, Aug. 2021. [Online]. Available: <http://dx.doi.org/10.3389/fpls.2021.697556>

- [10] D. Jardim-Messeder, T. da Franca Silva, J. P. Fonseca, J. N. Junior, L. Barzilai, T. Felix-Cordeiro, J. C. Pereira, C. Rodrigues-Ferreira, I. Bastos, T. C. da Silva, V. de Abreu Waldow, **D. Cassol**, W. Pereira, B. Flausino, A. Carniel, J. Faria, T. Moraes, F. P. Cruz, R. Loh, M. Van Montagu, M. E. Loureiro, S. R. de Souza, A. Mangeon, and G. Sachetto-Martins, "Identification of genes from the general phenylpropanoid and monolignol-specific metabolism in two sugarcane lignin-contrasting genotypes," *Mol. Genet. Genomics*, vol. 295, no. 3, pp. 717–739, 2020.
- [11] P. C. S. Braga, J. P. R. Martins, M. V. Pacheco, R. M. Borges, R. Bonomo, **D. Cassol**, and A. R. Falqueto, "Germination and seedling growth of genotypes *Crambe abyssinica* submitted to water deficit," *The Journal of agricultural science*, vol. 11, no. 15, p. 23, Sep. 2019.
- [12] **D. Cassol**, F. P. Cruz, K. Espindola, A. Mangeon, C. Müller, M. E. Loureiro, R. L. Corrêa, and G. Sachetto-Martins, "Identification of reference genes for quantitative RT-PCR analysis of microRNAs and mRNAs in castor bean (*Ricinus communis* L.) under drought stress," *Plant Physiology and Biochemistry*, vol. 106, pp. 101–107, 2016.
- [13] **D. Cassol**, J. Cambraia, C. Ribeiro, J. A. Oliveira, and F. B. Cardoso, "Citric acid secretion induced by aluminum in two *Stylosanthes* species," *Biologia Plantarum*, vol. 60, pp. 572–578, 2016.
- [14] M. A. Bacarin, E. G. Martinazzo, **D. Cassol**, A. R. Falqueto, and D. M. Silva, "Daytime variations of chlorophyll a fluorescence in pau d' alho seedlings," *Revista Árvore*, vol. 40, pp. 1023–1030, 2016.
- [15] A. T. Perboni, **D. Cassol**, F. P. d. Silva, D. M. Silva, and M. A. Bacarin, "Chlorophyll a fluorescence study revealing effects of flooding in canola hybrids," *Biologia*, vol. 67, pp. 338–346, 2012.
- [16] M. A. Bacarin, S. Deuner, F. S. P. d. Silva, **D. Cassol**, and D. M. Silva, "Chlorophyll a fluorescence as indicative of the salt stress on *Brassica napus* L.," *Brazilian Journal Plant Physiology*, vol. 23, pp. 245–253, 2011.
- [17] A. R. Falqueto, F. S. P. Silva, **D. Cassol**, A. M. Magalhães Júnior, A. C. Oliveira, and M. A. Bacarin, "Chlorophyll fluorescence in rice: probing of senescence driven changes of PSII activity on rice varieties differing in grain yield capacity," *Brazilian Journal Plant Physiology*, vol. 22, pp. 35–41, 2010.
- [18] A. R. Falqueto, **D. Cassol**, A. M. Magalhães Júnior, A. C. Oliveira, and M. A. Bacarin, "Growth and assimilate partitioning in rice cultivars difference in grain yield potential," *Bragantia*, vol. 68, pp. 563–571, 2009.
- [19] A. R. Falqueto, **D. Cassol**, A. M. d. Magalhães Júnior, A. C. d. Oliveira, and M. A. Bacarin, "Physiological analysis of leaf senescence of two rice cultivars with different yield potential," *Pesquisa Agropecuária Brasileira*, vol. 44, pp. 695–700, 2009.
- [20] **D. Cassol**, F. S. P. d. Silva, A. R. Falqueto, and M. A. Bacarin, "An evaluation of non-destructive methods to estimate total chlorophyll content," *Photosynthetica*, vol. 46, pp. 634–636, 2008.
- [21] M. A. Bacarin, D. D. Schmitz, A. R. Falqueto, **D. Cassol**, A. C. Torres, J. A. Peters, and E. J. B. Braga, "Photosynthetic characteristics of potato plants, cv. baronesa and its genetically transformed genotype for pvY resistance," *Horticultura Brasileira*, vol. 26, pp. 383–387, 2008.
- [22] A. R. Falqueto, **D. Cassol**, A. M. d. M. Júnior, A. C. d. Oliveira, and M. A. Bacarin, "Fluorescence characteristics of chlorophyll in rice cultivars with early, medium, and late cycle," *Brazilian Journal of Biosciences*, vol. 2, pp. 579–581, 2007.
- [23] A. Falqueto, **D. Cassol**, A. Magalhães Júnior, A. Oliveira, and M. Bacarin, "Photosynthetic characteristics in rice cultivars with contrasting production," *Brazilian Journal of Biosciences*, vol. 2, pp. 582–584, 2007.
- [24] **D. Cassol**, A. Falqueto, and M. Bacarin, "Photosynthesis in *Mentha piperita* and *Melissa officinalis* under shading," *Brazilian Journal of Biosciences*, vol. 2, pp. 576–578, 2007.
- [25] **D. Cassol**, A. Falqueto, and M. Bacarin, "Influence of nitrogen fertilization on the characteristics of chlorophyll in rice," *Brazilian Journal of Biosciences*, vol. 2, pp. 573–575, 2007.

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PEER-REVIEWED  
CONFERENCE  
ARTICLES

- [26] **D. Cassol**, A. Clum, J. Froula, E. Kirton, R. Kothadia, M. Melara, E. Player-Jackson, S. Sarrafan, S.-J. Sul, S. Trong, N. Tyler, T. Brûna, L. Baumgart, and K. Fagnan, “Supporting FAIR scientific workflows with the JGI analysis workflow service (JAWS),” pp. 141–149, Sep. 2025.
- [27] J. Bader, J. Belak, M. Bement, M. Berry, R. Carson, **D. Cassol**, S. Chan, and et al, “Novel approaches toward scalable composable workflows in Hyper-Heterogeneous computing environments,” in *Proceedings of the SC '23 Workshops of The International Conference on High Performance Computing, Network, Storage, and Analysis*, ser. SC-W '23. New York, NY, USA: Association for Computing Machinery, Nov. 2023, pp. 2097–2108.
- [28] **D. Cassol**, A. Falqueto, A. Magalhães Júnior, A. Oliveira, and M. Bacarin, “Biomass partition in cultivars of *Oryza sativa* L. with different grain yield,” in *XVIII Scientific Initiation Conference e XI Graduate Meeting*, Pelotas, Brazil, 2009.
- [29] F. Silva, **D. Cassol**, and B. M. Moura, Andréa Bittencourt, “Transient fluorescence in irrigated rice plants from microbiolized seeds with different inoculants,” in *XVIII Scientific Initiation Conference e XI Graduate Meeting*, Pelotas, Brazil, 2009.
- [30] I. Souza Junior, C. C. Schafer, J.T, A. Santos, S. F. Moura, A.B, **D. Cassol**, and M. Bacarin, “Chlorophyll fluorescence as an indicator for selection of growth-promoting rhizobacteria in rice,” in *VI Congresso Brasileiro de Arroz Irrigado*, Pelotas, Brazil, 2009.
- [31] F. Silva, A. Falqueto, **D. Cassol**, A. Magalhães Júnior, A. Oliveira, and M. Bacarin, “Analysis of transient fluorescence in two irrigated rice genotypes during the reproductive stage,” in *XVII Scientific Initiation Conference e X Graduate Meeting*, Pelotas, Brazil, 2008.
- [32] A. Perboni, **D. Cassol**, F. Silva, D. Silva, and M. Bacarin, “Effect of salinity on transient fluorescence in canola plants,” in *XVII Scientific Initiation Conference e X Graduate Meeting*, Pelotas, Brazil, 2008.
- [33] **D. Cassol**, F. Silva, A. Falqueto, A. Magalhães Júnior, A. Oliveira, and M. Bacarin, “Fluorescence of chlorophyll a in rice genotypes with different cycle,” in *XVII Scientific Initiation Conference e X Graduate Meeting*, Pelotas, Brazil, 2008.
- [34] A. Falqueto, **D. Cassol**, A. Magalhães Júnior, A. Oliveira, and M. Bacarin, “Aspects of chlorophyll fluorescence in rice cultivars with contrasting production,” in *V Congresso Brasileiro de Arroz Irrigado e XXVII Reunião da Cultura do Arroz Irrigado*, Pelotas, Brazil, 2007.
- [35] **D. Cassol**, A. Falqueto, A. Magalhães Júnior, A. Oliveira, and M. Bacarin, “Differences in chlorophyll fluorescence production in rice cultivars with contrasting production,” in *XVI Scientific Initiation Conference e IX Encontro dos Programas de Pós-Graduação*, Pelotas, Brazil, 2007.
- [36] F. A. Schmitz, D.D, **D. Cassol**, B. M. Peters, José Antonio, and E. Braga, “Fchlorophyll fluorescence and potato production components cv. monkey genetically transformed with a fungal resistance gene,” in *57 Brazilian Botanical Conference*, Gramado, Brazil, 2006.
- [37] F. A. Schmitz, D.D, **D. Cassol**, J. Peters, M. Bacarin, and E. Braga, “Photosynthetic characteristics of potato plants, cv. baronesa and its genetically transformed genotype for pvy resistance,” in *57 Brazilian Botanical Conference*, Gramado, Brazil, 2006.

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TECHNICAL  
REPORT

- [38] R. F. Da Silva, D. Bard, K. Chard, I. Foster, T. Gibbs, C. Goble, and et al., “Workflows community summit 2024: Future trends and challenges in scientific workflows,” no. ORNL/TM-2024/3573, Oct. 2024.

SOFTWARE AND  
DATA PACKAGES

- **JAWS**: JGI Analysis Workflow Service. [[Documentation](#)].
- **systemPipeR**: Workflow and Visualization Toolkit. [[Available on Bioconductor](#)].
- **systemPipeRdata**: Workflow templates and sample data. [[Available on Bioconductor](#)].
- **systemPipeShiny**: An Interactive Framework for Workflow Management and Visualization. [[Available on Bioconductor](#)].
- **systemPipeTools**: Tools for data visualization. [[Available on Bioconductor](#)].
- **bioassayR**: Cross-target analysis of small molecule bioactivity. [[Available on Bioconductor](#)].

AWARDS AND RESEARCH GRANTS	<ul style="list-style-type: none"> <li>• 2022 Awards – International Scholar Research Award - University of California, Riverside</li> <li>• 2020 Research grant – Physiological Characterization, <i>in vitro</i> establishment, and transcriptome of <i>Zanthoxylum tingoassuiba</i> - FAPEMA, Brazil</li> <li>• 2019 Travel grant – BioC 2019: Where Software and Biology Connect. New York, USA</li> <li>• 2018 Travel grant – BioC 2018: Where Software and Biology Connect. Toronto, Canada</li> <li>• 2014–2015 Rio de Janeiro Research Foundation, Brazil Doctoral Exchange Fellowship</li> <li>• 2012–2016 National Council for Scientific and Technological Development, Brazil Ph.D. Research Fellowship</li> <li>• 2010–2012 National Council for Scientific and Technological Development, Brazil M.Sc. Research Fellowship</li> <li>• 2008 Travel grant – XIII Reunión Latinoamericana y XXVII Reunión Nacional de Fisiología Vegetal. Rosario, Argentina</li> <li>• 2006–2010 National Council for Scientific and Technological Development, Brazil Undergraduate Research Fellowship</li> <li>• 2005–2006 Fellowship Rio Grande do Sul Research Foundation, Brazil Undergraduate Research Fellowship</li> </ul>
CERTIFICATIONS & SPECIALIZATION	<ul style="list-style-type: none"> <li>• <b>Advanced Certified Scrum Product Owner (ACSPO)®</b>. 2025. Scrum Alliance. Credential ID <a href="#">2061223</a>.</li> <li>• <b>Advanced Certified Scrum Developer®</b>. 2024. Scrum Alliance. Credential ID <a href="#">1938879</a>.</li> <li>• <b>New Manager Boot Camp</b>. 2024. UC Berkeley Executive Education. Credential ID <a href="#">100113979</a>.</li> <li>• <b>Certified Scrum Product Owner®</b>. 2023. Scrum Alliance. Credential ID <a href="#">1878822</a>.</li> <li>• <b>Certified Scrum Developer®</b>. 2023. Scrum Alliance. Credential ID <a href="#">1806995</a>.</li> <li>• <b>Leading Teams: Developing as a Leader</b>. 2023. University of Illinois at Urbana-Champaign. Credential ID <a href="#">L87HWAND2XY9</a>.</li> </ul>
PROFESSIONAL ACTIVITIES	<p><b>Participation on Advisory Panels and Committees</b></p> <ul style="list-style-type: none"> <li>• Lab Ambassador Program - LBNL. 2023–Present</li> <li>• Member of Berkeley Lab Early Career Employee Resource Group. 2023–Present</li> <li>• Member of Women’s Support and Empowerment Council (WSEC). 2023–Present</li> <li>• Board Member of Bioconductor Community Advisory Board. 2021–2024</li> <li>• Member of International Student &amp; Scholars Advisory Committee (ISAC). 2020–2022</li> <li>• Co-founder and co-organizer of <b>R-Ladies Riverside</b> and <b>R-Ladies São Mateus</b>: An organization to promote gender diversity in the R community. 2019–2024</li> <li>• Vice-President of Riverside Postdoc Association. 2019–2020</li> </ul> <p><b>Professional Memberships</b></p> <ul style="list-style-type: none"> <li>• Association for Computing Machinery. 2023 – Present</li> <li>• American Society of Plant Biologists. 2021–2022</li> <li>• Sigma Xi - The Scientific Research Honor Society. 2021–2022</li> <li>• American Association for the Advancement of Science. 2020–2022</li> <li>• International Society for Computational Biology. 2019–2023</li> <li>• Association for Women in Science. 2019–Present</li> <li>• Brazilian Society of Plant Physiology. 2007–2010</li> </ul>
CONFERENCE AND SYMPOSIUM ORGANIZATION	<ul style="list-style-type: none"> <li>• 2022 – Bioconductor Conference 2022. Seattle, WA. Organizing Committee Member. <a href="#">Website</a></li> <li>• 2021 – R for Data Science Book Club. Federal University of Espírito Santo, Brazil. Organizing Committee Member.</li> <li>• 2019 – Postdoc Symposium 2019. University of California, Riverside. Riverside - CA, USA. Organizing Committee Member. <a href="#">WebSite</a></li> <li>• 2018 – 5th Annual CEPCEB PostDoc Symposium. University of California, Riverside.</li> </ul>



Riverside - CA, USA. Organizing Committee Member. [Web Page](#)

- 2009 – XVIII Scientific Initiation Conference and XI Graduate Meeting. Federal University of Pelotas, Brazil. Organizing Committee Member.
- 2008 – XVII Scientific Initiation Conference and X Graduate Meeting. Federal University of Pelotas, Brazil. Organizing Committee Member.
- 2007 – XVI Scientific Initiation Conference and IX Graduate Meeting. Federal University of Pelotas, Brazil. Organizing Committee Member.
- 2007 – XI Plant Physiology Conference. Gramado, RS, Brazil. Organizer.
- 2006 – XV Scientific Initiation Conference and VIII Graduate Meeting. Federal University of Pelotas, Brazil. Organizing Committee Member.

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SELECTED  
CONFERENCE  
PRESENTATIONS

- [39] **D. Cassol**, “Leveraging doe infrastructure for large-scale data analysis in collaborative science,” in *Fourth Combined Workshop on Interactive and Urgent High-Performance Computing (WIUHPC) at SC24*, Conference, 2024, (Presentation).
- [40] **D. Cassol**, J. Froula, E. Kirton, S.-J. Sul, M. Melara, R. Kothadia, E. Player, S. Sarrafan, S. Chan, and K. Fagnan, “Patterns and anti-patterns in migrating from legacy workflows to workflow management systems,” in *SC23: The International Conference for High Performance Computing, Networking, Storage, and Analysis*, Conference, 2023, (Presentation).
- [41] "**D. Cassol**, J. Froula, E. Kirton, A. Kollmer, R. Kothadia, M. Melara, G. Rath, K. Rowland, S. Sarrafan, S.-J. Sul, S. Trong, S. Yao, S. Chan, and K. Fagnan", “*JAWS: JGI* analysis workflow service,” in *JGI User Meeting*, Conference, 2022, (Poster).
- [42] **D. Cassol**, J. Froula, E. Kirton, A. Kollmer, R. Kothadia, M. Melara, G. Rath, K. Rowland, S. Sarrafan, S.-J. Sul, S. Trong, S. Yao, S. Chan, and K. Fagnan, “*JAWS: JGI* analysis workflow service,” in *BioC 2022: Where Software and Biology Connect*, Conference, 2022, (Poster).
- [43] **D. Cassol**, L. Zhang, and T. Girke, “*systemPipeR*: Workflow and visualization toolkit,” in *BioC 2021: Where Software and Biology Connect*, Online Conference, 2021, (Workshop).
- [44] **D. Cassol**, L. Zhang, G. Mosher, P. Ramasamy, and T. Girke, “*systemPipeR*: a generic workflow environment federates r with command-line software,” in *BioC 2020: Where Software and Biology Connect*, Boston, US - Online Conference, 2020, (Poster).
- [45] **D. Cassol**, T. Girke, M. Zecevic, and Q. Hu, “Common workflow language (cwl) workshop,” in *BioC 2019: Where Software and Biology Connect*, New York, US, 2019, (Workshop).
- [46] **D. Cassol** and T. Girke, “*systemPipeR*: Ngs workflow environment with command-line interface,” in *Bioconductor*, Toronto, Canada, 2018, (Poster).
- [47] D. Cassol and T. Girke, “*systemPipeR*: Ngs workflow and report generation environment,” in *International Scholar Research 2017*, Riverside, California, 2017, (Poster).
- [48] **D. Cassol**, F. Cruz, K. Espindola, M. E. Loureiro, R. L. Correa, and G. Sachetto-Martins, “Selection and validation of reference genes for expression studies in castor beans (*Ricinus communis* L.) under drought stress using RT-qPCR,” in *11th International Congress of Plant Molecular Biology*, Foz do Iguaçu, Brazil, 2015, (Poster).
- [49] G. Jucoski, **D. Cassol**, J. Cambraia, C. Ribeiro, E. Fonseca Junior, L. Souza, and F. Cardoso, “Antioxidative metabolism in young plants of *Eugenia uniflora* L and submitted to toxic iron levels,” in *XIII Brazilian Congress of Plant Physiology and XIV Latin American Meeting of Plant Physiology*, Buzios, Brazil, 2011, (Poster).
- [50] S. Deuner, F. Silva, **D. Cassol**, and M. Bacarin, “Salinity stress in canola plants,” in *XII Brazilian Congress of Plant Physiology*, Fortaleza, Brazil, 2009, (Presentation).
- [51] **D. Cassol**, F. Silva, A. Perboni, M. Farias, A. Oliveira, and M. Bacarin, “Chlorophyll fluorescence of two oat cultivars grown in a greenhouse,” in *XII Brazilian Congress of Plant Physiology*. Fortaleza, Brazil: Brazilian Society of Plant Physiology, 2009, (Poster).

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- [61] **D. Cassol**, C. Giordani, R. Cunha, M. Provenci, L. Minello, M. Coimbra, and M. Pereira, “Nervous territories of thoracic limb of *Amazonetta brasiliensis*,” in *XVII Scientific Initiation Meeting e XIV Scientific Initiation Fair*, Porto Alegre, Brazil, 2005, (Presentation).

LANGUAGES      Portuguese (native) and English (proficient).

TECHNICAL AND PERSONAL SKILLS      

- **Programming Languages:** R; bash; Python; RMarkdown; TeX.
- **Software Development Practices:** Git, CI/CD, Docker, Python, R, system integration testing.
- **Biology:** Next Generation Sequencing; Nucleic Acid Isolation; RT-qPCR; Genotyping; Clinical Genetics Test and Statistical Analysis.
- **Strengths Skills:** Good presentation skills; Works well in a team; Able to master new skills quickly.
- **Agile Product Ownership:** Scrum, LeSS, sprint planning, backlog grooming, epic scoping.
- **User-Centered Design (UCD):** Experience translating user research into actionable technical requirements and intuitive product features.
- **Scientific Workflow Strategy:** Expertise in developing, maintaining, and scaling bioinformatics workflows; contributed to WDL adoption across teams.
- **Distributed Computing Infrastructure:** Practical experience coordinating deployments and user support at NERSC (Perlmutter), EMSL (Tahoma), and OLCF (Defiant).
- **Cross-functional Collaboration:** Led multi-site partnerships and facilitated collaboration between scientists, engineers, and operations staff.