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Free Code-Based Software Music Classes as an Invitation to Fuel Students' Sonic Creativity, Problem Solving, and Community Building

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PRESENTED AT

ATMI National Conference 2025
Thursday, October 30, 2025
Spokane, WA

Workshop/Training Session (55 minutes)

ABSTRACT

This workshop proposes the integration of free code-based programming software into music classes to expand students' sonic creativity, problem-solving skills, and community-building opportunities.

Through ideas and concrete applications, the workshop invites educators to incorporate code-based music courses into their curricula, fostering interdisciplinary collaboration and technical fluency among students. Examples of creative coding will be demonstrated in SuperCollider and Processing, emphasizing their low-cost accessibility and adaptability for various educational contexts. These platforms enable students to engage with creative practices that go beyond traditional instrument-based methods, allowing them to explore sound design, live coding, algorithmic composition, and multimedia integration.

Key topics include how coding cultivates problem-solving by requiring students to structure and debug their creative ideas, how sonic imagination (orchestration) is expanded through the possibilities of code-based digital sound processing, and how community and collaboration naturally arise in learning environments that focus on sharing code and working in real-time performance contexts.

This proposal encourages an open, inclusive educational approach, where coding becomes a powerful medium for musical expression, research and inclusion.

Note: the code examples will be shared in advance with all participants.

ABOUT THE PRESENTER

Jorge Variego
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Jorge Variego was born in Rosario, Argentina. He is a former Fulbright Scholar and is currently Assistant Professor of Music Composition and Technology at the University of Tennessee, Knoxville and is the director of the composition program at the Sewanee Summer Music Festival.

His music can be heard in the Parma, Albany Records, CMMAS, Centaur and Naxos libraries. Among his recent research endeavors, his book “Composing with Constraints” was published by Oxford University Press in 2021. In 2023 he was the guest in many festivals, including the inaugural Festival de Música Algorítmica y Modular hosted by the Universidad Nacional de Musica de Perú, in Lima. In the 23-24 season, his music was performed by the Oak Ridge Symphony, the Bryan Symphony and the Knoxville Symphony.

Jorge is the founder director of the Domino Ensemble a non-profit organization dedicated to the promotion, commission, and performance of new music with improvisation. The group released “Purple Ego” (Centaur – 2019) and “Recompensa” (Centaur – 2023) among other recordings. In 2023 the ensemble performed at the Big Ears festival in collaboration with British author Geoff Dyer and in 2024 presented “Recompensa” at the ShapeShifter Lab in Brooklyn, NY.

He is also the founder director of the UT Electroacoustic Ensemble, a student group dedicated to free improvisation with electronic media and is the Treasurer of ATMI and a member of the Society of Composers National Council.

Jorge is the 2025 Composition Fellow by the TN Arts Commission.
For more information, please visit: www.jorgevariego.com