



EPK

Descriptions

The Effects of Gravity tells the story of our cosmic origins—the formation of the universe, galaxies, stars, planets, our solar system, and our planet— from both scientific and poetic perspectives. The performance is richly illustrated with animated computer graphics and astronomical images brought to life by a live, blazingly virtuosic electric guitar score and original poetry that embraces the vastness, complexity, and beauty of the cosmos and our efforts to understand it. At this historic juncture where the James Webb Space Telescope and other observatories are bringing us stunning images, and where science, regrettably, is under attack, we are pleased to offer The Effects of Gravity as an artful, fact-filled multi-media performance that celebrates the human quest for understanding as it speaks for planetary stewardship.

The Effects of Gravity is the perfect show for audiences who gaze at the stars and wonder, who have questions and seek knowledge, and who know that science and art are expressions of the same basic human impulse to explore. Be prepared to have your mind blown, your heart opened, your eyes widened, and your ears treated to sounds they've never imagined before.

Short version

The Effects of Gravity as an artful, fact-filled multi-media performance that celebrates the human quest for understanding as it speaks for planetary stewardship.

Bios

ÁLVARO DOMENE - composer/guitarist

Álvaro Domene is a Madrid-born, New York based guitarist and composer operating at the convergence of various styles of contemporary creative music. His sound and compositions are influenced by the avant-garde jazz and western contemporary classical traditions, as well as metal music. He has released 26 albums as a leader and/or co-leader and is an active performer in New York's creative music scene, leading various groups in addition to working with numerous artists.

Álvaro has performed and taught internationally, and recently worked with luminaries such as Joe McPhee, Karl Berger, Briggan Krauss, Elliott Sharp, Sam Newsome, Weasel Walter, Billy Martin and others.

LUKE KELLER - astrophysicist, educator

Luke Keller is a professor of physics and astronomy at Ithaca College. He teaches all areas of physics and astronomy. He particularly enjoys teaching in the spaces between the traditional academic disciplines, recently collaborating with professors in the departments of Art and Religion & Philosophy. He received an Ithaca College Faculty Excellence Award in 2010 and was appointed to the IC President's Advisory Council on Innovation. Keller and his research students are fascinated by questions of origins; their research investigates the chemical composition, formation, and evolution of stars and planetary systems. Keller has also designed and built numerous instruments used on large research telescopes for astronomical observations. He was a co-investigator on a team that built an infrared camera for NASA's Stratospheric Observatory for Infrared Astronomy, a 747 aircraft with a large telescope built into its fuselage. For their work on this project Keller and his colleagues received a NASA Group Achievement Award in 2011. Keller is committed to the goal of teaching and inspiring an appreciation for the process of science.

- Ithaca College Faculty Excellence Award
- Charles A. Dana Endowed Professorship
- NASA Group Achievement Award

DAVID GONZALEZ - poet

David Gonzalez is a poet, playwright, storyteller, musician, arts advocate, and public speaker. He is a cultural ambassador for the U.S. State Department, is a Fellow of the Joseph Campbell Foundation and received a Drama Desk Nomination for his production *The Frog Bride*. David is the recipient of the International Performing Arts for Youth "*Lifetime Achievement Award for Sustained Excellence*" as well as the New Jersey Governor's Award for Distinguished Service in the Arts. Mr. Gonzalez has performed his original works at Lincoln Center, The Kennedy Center, The Los Angeles Music Center, The Royal National Theater, and numerous premiere venues

across the U.S.

Awards

- Joseph Campbell Foundation Fellow
- Drama Desk Nomination
- Lifetime Achievement Award - IPAY
- NJ Governor's Arts Award for Distinguished Service
- Helen Hayes Performing Artist of the Year
- Rhode Island State Award for Cultural Heritage

Grants (partial list)

- National Endowment for the Arts
- James Irvine Foundation
- NYSCA
- Lila Wallace Fund
- Burroughs Wellcome Fund
- National Endowment for the Humanities
- Massachusetts Museum of Contemporary Art

Commissions

- Kennedy Center for the Performing Arts
- Cincinnati Opera
- Smithsonian Institution
- The Empire State Plaza PAC
- The Clarice @ University of Maryland
- Cleveland Playhouse Square
- The New Victory Theater
- Mohonk Festival of the Arts
- Cincinnati Playhouse in the Park
- State University of NY - Purchase
- New Jersey Performing Arts Center
- Brooklyn College

Mission Statements

David Gonzalez

Apples fall, stars collapse, hearts break. The effects of gravity are in evidence everywhere – in the spectacular displays of supernovae, and in the quiet snow that comes to rest on my windowsill. This project, inspired by the vast mysteries of the cosmos, seeks to connect the unknowable with the known, the infinite and the Earthly. My hope is that this poetry points to questions, sings from wonder with its feet on the ground of mortal truth, its gaze lifted to the heavens.

Multiverse (excerpt)

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*Spacetime flows through solar storms and the bones of this body,
The atoms in these fingers and the pixel-scribed words they set on the page
are saturated with radiation from the instant of cosmic beginning,
These very words, spoken aloud in this warm room
on this frosty January night,
echo into infinity.*

*Let every poet study the stars,
let every astronomer be a lyricist,
let's start again,
let's return to the gnarly questions,
to the straight facts,
to the fractal flux
where this universe and the universe are one,
somewhere in this,
may revelation begin.*

Luke Keller - Astrophysicist

The universe is a spectacularly creative space: the galaxy and solar system we inhabit, planet Earth, and life itself have their origins in the creative effects of gravity. Science at its best is good story telling and the story of the universe is one of the most spectacular we know. Scientists tell this story in many ways including astrophysical simulations, using super computers, of the evolving universe from its first moments to the present. The resulting images and scenes are simultaneously inspiring and frightening. My hope is that we can help place the science, elucidated by David's poetry and Álvaro's music, in the context of everyday human experience. When faced with inspiration and uncertainty we often turn to poetry and music. They ground us. Like gravity.

Álvaro Domene – Composer/musician

As the composer and musician, my contribution to FX of Gravity explores the relationship between sound, cosmological imagery, and our imagination. With influences from avant-garde composers Giacinto Scelsi and Iannis Xenakis, jazz titan John Coltrane, and creative metal bands Meshuggah and Sunn, I aim to generate sound, simultaneously majestic and terrifying, as an interpretation of the phenomena represented in the visualizations. The chaos, geometry, structure, and textures inherent in them inspire me to generate both pre-composed and spontaneously discovered musical spaces.

As long as I can remember I have been fascinated by the unrelenting majesty of the universe. I am fascinated by the question of how my music can cinematically evoke the juxtaposition of darkness and light in astronomical phenomena – like the sounds that a stellar explosion might produce. I believe that The Effects of Gravity, with the aid and use of new technology and video visuals, harmonizes a new kind of relationship between the performers, the space, and the audience, and I couldn't be more inspired by my partners, and delighted to be a part of it.

Outreach

Luke Keller

Public presentation (lecture and/or interactive mode)

UFOs and Extraterrestrial Life

Black Holes

Dark Energy and Dark Matter

Cosmic Origins

Our Solar System

Audiences can be mixed-age general public, middle or high school, college. High school and college groups can opt for a more technical level tailored to their interests.

Stargazing Session depends on weather and availability of a suitable location. Can also be virtual with software -based “planetarium.”

Masterclass The scientific process and science public outreach with college undergraduate and/or graduate students and/or faculty.

Alvaro Domene

Masterclass for musicians/guitarists

- * Strategies for Spontaneous Composition
- * Instrumental advice, discussion about sound, identity and artistic self-awareness
- * Discussion about the possibilities of contemporary electric guitar-generated materials for the creation of a sonic tapestry of granular textures, glitch, metallic drones, and electronic soundscapes
- * When possible, participants will join with their instruments

Solo concert followed by conversation

- * Performance of original compositions followed by Q&A
- * Emphasis on discussion of Form, Multi-directionality of Generated Materials, and the Sonic Possibilities of 21st century Electric Guitar music

Discussion and demonstration about my experience in interdisciplinary collaboration.

- * My contribution to EOG and how it explores the interconnection between astrophysical imagery, sound, and our imagination.
- * Pragmatic strategies for composers/musicians: Melodic Syntax, Sound, Space, and Cinematic Harmonic Progressions.
- * Drawing influence from your collaborators' fields to generate musical ideas: how chaos, geometry, structure, and textures inherent in the EOG visuals and astrophysicis compel me to

generate both pre-composed and also spontaneously discovered musical spaces in the live performance context. (Algorithmic, Modular, Melodic and Rhythmic ideas derived from collaborator's input and data.)

* Composer/Performer and the responsibility of the emotional impact of sound in the overall production of the show.

* Deep Listening, Ego, and the delicate art of accompanying spoken word onstage.

David Gonzalez

- From Page to Stage: The art of public reading
- The Confluence Model of Storytelling: Empowering tellers through embodied practices
- Earth, Moon, Sun and Stars: Writing the poetry for The Effects of Gravity
- Community readings and performances

Motivation for The Effects of Gravity

Poetry inspires questions and new ideas, it inspires action. Poetry involves language used to express intense emotions in a condensed, aesthetically deliberate way. It describes a careful noticing of the world and its patterns, but it also involves sensing—using physical sensations to round out our perceptions of nature. Poets move beyond what they noticed initially, through connections that are often intuitive, to express something beyond the language itself. Creating or experiencing an artwork focused on natural phenomena therefore involves more than spontaneous reactions; more than an emotional response; more than aesthetic connections among experiences; and therefore transcends a purely subjective experience of nature.

Music enables description and communication without words. It connects our senses and imaginations; it inspires action. As with poetry, music often describes observations of the world interpreted in sound and silence, light and darkness. Music composition, improvisation, and performance in response to natural phenomena enable and inspire the connection of experience and underlying patterns. It can make us aware of the optical as well as the acoustic. Music is therefore more than sound; more than melody and rhythm; more than soundtrack; more than performance and therefore transcends a purely subjective experience of nature.

Science enables good storytelling. It connects observations to new understanding. Like poetry and music, science involves imagination and creativity; it involves clear communication; it inspires action. The scientific process, a way to explore and describe nature, is based on noticing details and identifying the patterns that connect those details through systematic observation. A story emerges from the process of building the details and connections into a narrative—often one that simplifies and condenses the story to its essence—so that any interested person can appreciate the story with confidence. In this way science transcends a purely *objective* experience of nature.