STUDY GUIDE

CONSTELLATIONS

GEFFEN PLAYHOUSE

CONSTELLATIONS

LOS ANGELES PREMIERE IN THE GIL CATES THEATER AT THE GEFFEN PLAYHOUSE

JUNE 6 – JULY 16, 2017

SPECIAL THANKS TO

Randall Arney, Amy Levinson, Brian Dunning, Rachel Weigardt-Egel,
Ashley Bodul, Peter Banachowski, Scott Kriloff, Ellen Catania, Jessica Brusilow Rollins,
Carolyn Marie Wright, Kristen Smith Eshaya and Brandon Drea.

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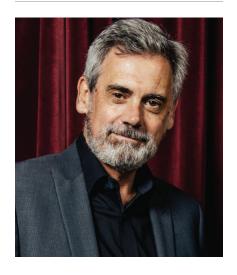
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ABOUT THIS PRODUCTION



ARTISTIC DIRECTOR'S COMMENT

RANDALL ARNEY



AS WE PLAN A SEASON OF PLAYS AT THE GEFFEN,

a thematic throughline inevitably emerges. When we chose Nick Payne's Constellations, the central idea of the 2016/2017 season became clear: how can a single moment change the course of our lives? By turns charming, painful and poignant, this story introduces us to beekeeper Roland and physicist Marianne as their lives intersect in a series of such moments. Through their distinct viewpoints — one dealing with the physical and immediate, one with the abstract and universal — we are reminded of the endless possibilities of what it means to love someone.

I am thrilled to welcome back Giovanna Sardelli who directed our Ovation Award-winning production of Rajiv Joseph's Guards at the Taj last season. Giovanna has brought together the incredible cast of Ginnifer Goodwin and Allen Leech and a team of designers, including Takeshi Kata (scenic), Denitsa Bliznakova (costumes), Lap Chi Chu (lighting) and Vincent Olivieri (original music and sound), who have created a world with the ability to become otherworldly.

SYNOPSIS

After Marianne and Roland meet at a barbecue, their relationship unfolds according to principles drawn from her profession of physics and takes place in multiple realities. Roland's occupation as a beekeeper has put him in touch with the fleeting quality of life. Though a severe illness threatens, Marianne counsels that their past, present, and future co-exist and are as infinite as their love will prove to be.

RUNNING TIME Approximately 80 minutes. There will be no intermission.

ARTISTIC BIOGRAPHIES

NICK PAYNE (Playwright)

Theater: If There Is I Haven't Found It Yet (Bush Theatre and Roundabout Theatre Company, New York), Wanderlust (Royal Court Theatre), Sophocles' Electra (Gate Theatre), One Day When We Were Young (Paines Plough/Sheffield Theatres and Shoreditch Town Hall), Lay Down Your Cross (Hampstead Theatre), Constellations (Royal Court Theatre, Duke of York's and U.K. tour), The Same Deep Water As Me (Donmar Warehouse, nominated for 2014 Olivier Award for Best New Comedy), Blurred Lines (The Shed, National Theatre), Incognito (Nabokov/Live Theatre, Newcastle), The Art of Dying (Royal Court Theatre), Elegy (Donmar Warehouse). Film: The Sense of an Ending (adaptation of Julian Barnes' Man Booker Prize-winning novel for BBC Films/Origin Pictures). Television: The Secrets (Working Title TV for BBC One), Wanderlust (Drama Republic for BBC One), Us (adaptation of David Nicholls' novel for BBC One). Awards: 2009 George Devine Award for Most Promising Playwright, 2012 Harold Pinter Playwright's Award, 2012 London Evening Standard Theatre Award for Best Play for Constellations.

GIOVANNA SARDELLI (Director)

Giovanna Sardelli returns to the Geffen Playhouse, having most recently directed *Guards at the Taj* (Ovation Award for Best Production of a Play). She is an award-winning director who has worked on world premieres of plays by Rajiv Joseph (including the recent production of *Archduke* at Mark Taper Forum), Matthew Lopez, Theresa Rebeck, Lynn Rosen, Joe Gilford, Jeff Augustin, Lauren Yee and Zoe Kazan among others. She has worked Off Broadway at the Cherry Lane Theatre, Second Stage Theatre, Vineyard Theatre, Playwrights Realm, Women's Project Theater, Ensemble Studio Theatre and Roundabout Theatre Company. She has directed numerous productions for Dorset Theatre Festival, where she is the Resident Director, Barrington Stage Company, Actors Theatre of Louisville, The Old Globe, Hartford Stage Company, Cleveland Play House, Cincinnati Playhouse, Hudson Stage Company, San Francisco Playhouse and TheatreWorks Silicon Valley, among others. She received her M.F.A. in acting from NYU and is also a graduate of their Directors Lab. Though based in New York, she is the Director of New Works for TheatreWorks Silicon Valley.

THEMES & TOPICS

MULTIPLE UNIVERSES & THEIR IMPLICATIONS

UNIVERSE

All matter and energy, including Earth, the galaxies, and the contents of space. (NASA)

COSMOLOGY

The branch of astronomy involving the origin and evolution of the universe, from the Big Bang to today and on into the future. (space.com)

LIGHT-YEAR

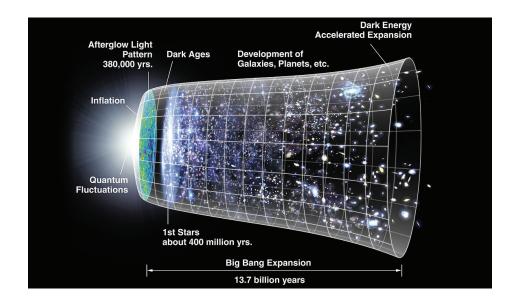
A light-year is how astronomers measure distance in space. It's defined by how far a beam of light travels in one year — a distance of six trillion miles. (earthsky.org)

MULTIVERSE

A theoretical reality that includes a possibly infinite number of parallel universes. (merriam-webster.com)

PHOTO CREDIT

NASA/WMAP Science Team / Public Domain



The scientific field of physics explores the "nature and properties of matter and energy," especially as they relate to the origins and workings of the universe on almost unimaginably vast and tiny scales.

For hundreds of years, scientists have focused on the "observable universe," which can be perceived not just by looking up into the night sky or through instruments in space like the Hubble telescope, but through technology on Earth that picks up light, radio waves and microwaves, which have traveled through time and space for millions of light-years to reach us. Through these observations, most cosmologists have deduced that the universe began in a flash, during what is known as the $Big\ Bang$, over 13 billion years ago and expanded rapidly into a "hot soup" of energy and matter. As these materials cooled and transformed and gravity exerted its force, billions of galaxies, like our Milky Way, and within them solar systems, including ours with its Earth revolving around the sun, formed.

In recent years, some physicists believe the field of studying the cosmos has been limited to what is only "observable" by those on Earth, and that certain mathematical formulations point to the possibility of a *multiverse* that contains multiple universes. They propose that after the Big Bang, bubbles emerged randomly in the "fabric" of our universe's space and time, in which other universes formed. Other cosmologists believe the expansion that resulted from the Big Bang is continuing eternally and creating other universes along the way. Whatever their source, many scientists believe these various "worlds" are entirely separate and do not exert any impact on each other.

QUANTUM MECHANICS

Deals with the mathematical description of the motion and interaction of subatomic particles. (Google)

GENERAL RELATIVITY

Einstein's theory about the interaction between space-time and matter: space-time is a dynamic entity, which is distorted by any matter that is contained in it, and which in turn tells that matter how to move and evolve. (einstein-onine.info)

STRING THEORY

A theory in physics in which tiny stringlike objects have modes of vibration that correspond to elementary particles. Such objects exist in a space-time that has more dimensions than the familiar three dimensions of space. (thefreedictionary.com)

SOURCES

www.physicsoftheuniverse.com

tinyurl.com/SpaceCosmo

tinyurl.com/Space-Multiverse

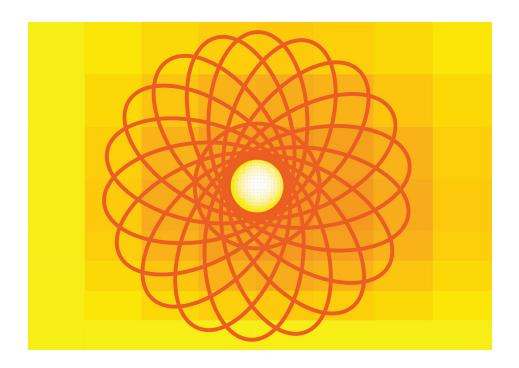
tinyurl.com/Smithsonian-Multiverse

tinyurl.com/SciAmer-

Multiverse

PHOTO CREDIT

Public Domain / Pixabay



Certain theoretical physicists have focused on *quantum mechanics* (also known as *quantum physics*), which attempts to understand the behavior of sub-atomic particles. Since these particles can split into different entities that exist at the same time, some scientists have hypothesized that everything in the universe, including our lives, can be manifested into multiple, co-existing possibilities. As Marianne tells Roland, "In the Quantum Multiverse, every choice, every decision you've ever and never made exists in an unimaginably vast ensemble of parallel universes."

Proponents not only point to the possibilities suggested by sub-atomic particle splitting, but also *string theory*, which some believe bridges the gap between *general relativity*, which underlies the energy, matter, structure and movement of the observable cosmos, and quantum physics. Critics point to how the existence of multiple universes cannot be proven in concrete ways. To this multiverse advocates have claimed that other universes likely obey different physical laws, which make them impossible to detect with the means scientists have developed on Earth.

DISCUSSION POINT

Take a moment to think about your "universe." What people, places, objects and activities are contained in it? Is it expanding, contracting or holding steady? What forces might be at work to make this so?

THEMES & TOPICS

In Constellations, playwright Nick Payne evokes Marianne's belief in the existence of parallel worlds not only in what she reveals to Roland but also by portraying different versions of their relationship as if they are occurring simultaneously in 3-4 different universes. He does this by repeating sections of dialogue with subtle changes, which affect the tone and complexity of their relationship as it evolves over time. For the director and actors who bring this play to life, Payne has indicated the changes in universes through alternating fonts.

Roland

Shame about the rain.

Marianne

Nothing worse than a soggy barbeque.

Roland

So are you, are you a friend of Jane's or-

Marianne

No, Jane, yeah. We were at college together.

Roland

Right.

Marianne

Yourself?

Roland

My wife used to work with Jane.

Seconds later, we witness the couple making small talk in a different universe.

Roland

Shame about the rain.

Marianne

Nothing worse than a soggy barbeque.

Roland

So are you, are you a friend of Jane's or ...?

Marianne

Who's Jane?

Roland

Jane's the- She's the lady having the barbeque?

Marianne

Oh, right, Christ, no. I was just walking past and I saw a load of free booze and sausages. I'm joking.

Roland

Right. Marianne. Jane and I were at college together. How about you?

The nuanced variations within these parallel worlds speak volumes about the characters, point to different outcomes of their journey and offer the tantalizing prospect of not having to live just one reality.

PLAYING WITH TIME



SOURCES tinyurl.com/Wiki-NonLinear

PHOTO CREDIT
Public Domain / Pixabay

Most human beings experience time as the irreversible unfolding of a series of moments — as if time were a flowing river in which we are carried along. Conventional, linear stories tend to mirror how we experience the passage of time. They usually have a beginning point (we step into the river), a middle section that moves the story forward (the river moves us along), and an end point (we step out of the river).

Novels, plays and films often also have a structure known as a *dramatic arc*. An inciting incident usually involving a main character sets the story in motion. (A bad person, the antagonist, throws us, the protagonist, into the river.) The main character has a strong goal and faces obstacles, due to the antagonist, other characters or overwhelming forces, which creates conflict and "rising," more intense, action. (We wish to not drown and to get safely to shore but the currents are strong and members of the antagonist's gang are standing on either side of the river.). There is usually a climactic moment in which the main character has a major realization, or makes a critical decision, or takes powerful action, followed by a peace-restoring resolution. (We realize we must stop resisting the current then float down the river more swiftly than the gang can follow. Once out of their sights, we use all of our remaining energy to swim to a river bank, climb up it and catch our breath, before running to the nearby town for help.)

In linear stories the events unfold chronologically. The characters' present becomes the past and they march into their futures as the story progresses. Events also tend to have causal effects: because we were thrown into the river we had to figure out how to survive; while struggling against the current we were in danger of drowning; because we outsmarted the antagonist's gang we were saved.

Some novelists, filmmakers and playwrights choose to consciously break up the traditional narrative structure, by jumping into the past, present and future of the characters' story, out of sequence and in unpredictable ways. This artistic choice can grab and sustain the audience's attention by making it work to piece the story together. Treating sections of the story in a non-linear way can also reveal facets of the characters' personalities through random juxtapositions of events, and move the audience, because it knows more about the characters' fates than they do.

As different versions of the relationship in Constellations play out, we jump into the future as a character faces a major health issue. This infuses the couple's courtship, to which we return in its various phases, with a poignancy that might be absent were we to witness the chronological growth of the couple's romance, then suddenly come upon the ill health of one of the characters. When, at the end of the play, we enter yet another version of an earlier stage of their relationship, we are reminded once again of the many possibilities this couple may experience.

EVERLASTING LOVE

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Love is a profound feeling that binds us to others, especially romantic partners. It can flash into existence then disappear suddenly or be extinguished gradually. It can erupt then shift into a deeper connection that endures. It can grow incrementally into an unbreakable bond. A deeply caring relationship often feels like it can go on forever. Even when not in our loved one's presence because of circumstances or loss, the person stays alive to us, through a shared history and memories. We may think of them, talk to them, and seek counsel from them, even when they are not near.

In addition to continuing to summon up a relationship from within, human beings have long used art to honor great loves and, in effect, make them eternal. Poetry, painted and photographed portraits and songs, are just a few of the ways a person's essence and likeness can be captured for all time.

Many religious faiths across cultures believe we will be reunited with loved ones after death. For those left behind, this belief offers much comfort.

In his unique approach to evoking everlasting love, playwright Nick Payne has turned to theoretical physics to create a sense of infinite possibility for Roland and Marianne. As she insists, "The b-b-basic laws of physics don't have a past and a present. Time is irrelevant at the level of a-atoms and molecules. It's symmetrical. We have all the time we've always had. You'll still have all our time."

DISCUSSION POINT

Whether separated by discord, geographical distance or their passing, how do you keep your connections to loved ones alive?

WHAT IF?

As human beings, we face significant choices in our lives, such as with whom to partner, what career to pursue and where to live. Small random moments that arise, such as sudden encounters or work opportunities, can also profoundly affect the course of our lives. In Constellations, Roland and Marianne meet at a barbecue, engage in a relationship that has its ups and downs, and run into each other outside of a ballroom dance class, which, depending on the reality they occupy, does or does not lead to them resuming their relationship. In this way, playwright Payne illuminates the power of choices that await us in big and small moments.

As young people, life tends to stretch out in front of us filled with possibilities, which can be both exciting and daunting, when considering the best choices to make. During middle age, we may feel defined or hemmed in by the direction our life has taken. What if we'd chosen differently? In older age, our life span is much more finite. Regrets about missed opportunities can surface, as well as appreciation for the richness of our lives.

WRITING TASK

- 1. Think of a pivotal moment that has impacted your life in powerful ways. Describe:
 - **Who** was involved What people, animals, objects, or forces were a part of the moment?
 - Where and when it took place What was the setting and time period?
 Did they influence how you responded to the moment?
 - What happened What took place right before and during the moment that affected your life? Where did the moment lead? What resulted?

2. Imagine another choice you might have made in that moment, under the same of circumstances. What do think would have happened? How might your life h been enhanced and/or diminished?	

After seeing Constellations, write up your own real and imagined pivotal moments, as scenes with characters and dialogue, in the style of the play.

PERSONNEL PROFILE

AN INTERVIEW WITH ASHLEY BODUL

What is your title and how long have you worked at the Geffen Playhouse?

I am the Associate Director of Public Relations; I've worked at the Geffen Playhouse since November 2016.

What are your primary responsibilities?

My job is to shape the public image of the Geffen Playhouse and communicate with our audiences through the press. I identify the Geffen's most exciting and noteworthy ideas — its plays, artists and business initiatives — and then persuade print, online and broadcast reporters to write positive stories. It's all done through press releases, pitches and building solid relationships with national and local press.

What is the difference between public relations and marketing?

Marketing is the umbrella term for all the ways in which we create awareness and sell our product, which is our plays, to consumers. Public relations, like advertising and social media management, is just one of the ways we do that. At its core, public relations is the process by which an organization communicates and builds relationships with the public. As a form of promotion, it utilizes the press to spread the word and pique the interest of consumers. Unlike other forms of marketing, public relations can't be paid for. It depends on strong relationships with reporters and strategic storytelling to get the word out.

How did you get into this line of work? What interests and professional experiences led to your current position at the Geffen? I have always loved the performing arts. I studied classical dance all my life and I teach dance and musical theater part-time, but I never envisioned myself making a career as an artist. I studied journalism and public relations at California State University, Fullerton, and after graduation, I got a job at Twentieth Century Fox. There, I worked my way from assistant to film publicist and then went to work as a publicist for Paramount Pictures. After ten years in the movie business, I was eager to get back to my roots and build a career in the performing arts. As it turns out, a film reporter told me the Geffen was hiring a publicist and put me in touch!

How is your work at a non-profit theater different from that for film studios?

Movies are designed to appeal to a wide audience and play on screens all over the world, so a film publicist's scope is much



larger. And there are far more outlets and reporters to help tell your story, but the stories themselves tend to focus on the celebrity of it. Working at a theater allows me to be closer to the creative process. I get to talk to the playwright, director and actors directly and learn about their journeys as people and as artists, which allows me to pitch a more personal, and therefore more interesting, story to the press.

What do you find most challenging about your work?

Los Angeles is a film and television town and reporters know that is what their audience is most interested in. For many people, theater is still seen as a niche form of entertainment, out of reach or meant to appeal only to a certain type. It takes a really compelling story to convince a reporter otherwise and break through all the movie and TV news.

What do you find most satisfying about your work?

I love that I get to work in a theater every day. I love the creativity that happens within its walls and the passion and dedication to the arts among my colleagues. As a publicist, I get to help share the stories of our artists with the people of Los Angeles, shape the public's awareness of arts in our community, and introduce theater to new audiences.

AUDIENCE ETIQUETTE

Going to the theater is a unique experience, and we all need to be mindful of "audience etiquette," or how to behave at the theater.

The Audience's Role: The audience plays an essential role at the performance of a play. Without an audience, the actors are only rehearsing. Audience members' concentrated silence and responses, such as laughing and applauding, provide energy to the actors as they bring the performance to life.

Behaviors to Avoid: Since the actors can hear the audience so clearly, it is important not to engage in behaviors that might disturb or distract them — and fellow audience members.

These actions include:

- Talking
- Texting
- · Allowing cell phones to ring
- · Taking photographs or video
- Getting up to leave before intermission or the end of the show (unless it is a true emergency)
- · Eating or drinking
- Unwrapping candy or cough drops.

Use of Social Media: We appreciate you sharing your Geffen Playhouse experience via social media, but ask that you **do not do so inside the theater, where the use of electronic devices is prohibited.**

We recommend that you post your status in the lobby after the performance, and invite you to tag @GeffenPlayhouse and use #GeffenPlayhouse to share your experience and continue the conversation with us online.

Audience Awareness Activity: Before going to the Geffen Playhouse for the first time, compare and contrast the experience of seeing a live play with:

- going to the movies
- · attending a live sporting event
- · watching television.

DISCUSSION POINT

If you were onstage performing a play, how would you want the audience to behave?

POST-SHOW DISCUSSION QUESTIONS

Depending on the time available and your group members' interests, guide them to respond to questions selected from those suggested below. Encourage everyone to participate, while having respect for differing opinions. Individuals can share their thoughts with a partner or in a small group. Ask for several volunteers to share their groups' answers with the larger group.

- Overall, how did you feel while watching Constellations? Engaged?
 Distanced? Engrossed? Bored? Confused? Moved? Inspired? What made you feel this way?
- What did you find most engaging about the play? What made it difficult to engage with the play? Why? (Provide evidence from the production.)
- Did you identify or empathize with the characters as they created their relationship? If so, how?
- What did you learn about the multiverse from watching the play? Were you inspired to reflect on the possible trajectories of your own life? If so, how?
- What did you appreciate, or not, about how Marianne and Roland's story was told in non-linear ways?
- How did the actors bring the parallel realities of the couple's relationship to life?
- · How did the actors enact the differences among the multiple realities?
- · How did the set and lighting contribute to telling the story in non-linear ways?
- · How you would summarize this play into one sentence?
- Would you recommend the Geffen's production of Constellations to other theatergoers? Why, or why not?

RESOURCES

LEARN how a painful loss and theoretical physics inspired British playwright Nick Payne to write *Constellations*, in a newspaper article he wrote at **tinyurl.com/Payne-Physics-Grief**.

EXPLORE the multiverse in an article and series of videos at **tinyurl.com/ Space-Multiverse**.

LEARN about the challenges of proving the multiverse exists through an article and video at **tinyurl.com/Smithsonian-Multiverse**.

WATCH a video that aims to illuminate quantum mechanics at **tinyurl.com/ Quantum-Motion**.

VISIT the Griffith Observatory in Los Angeles to learn about the visible universe. Check out Centered in the Universe in the planetarium. The Cosmic Connection exhibit (also accessible at **tinyurl.com/Griffith-Cosmic-Connection**) illustrates the history of the universe. For general information go to **www.griffithobservatory.org**.

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