Sofia Palmero Lau'rie Roach Parris Sarter²

Imani Vaughn-Jones²

WORKING TITLE PLAYWRATH

THANK YOU

| Name | Role |
|--|--|
| Edward Brown, Laura Chomiuk, Andrea Ghez, Stephen Zepf | Professors of Physics and Astronomy |
| Prakash Agrawal, Neil Patel | Planets & Telescopes Partners |
| Janelle Lawrence | Musical Theatre Mentor |
| Alexis McKay | Original Stage Manager |
| Daniela Cobb* | SPT0615-JD |
| Minka Wiltz* | Singularity |
| Vallea E. Woodbury | Gravity |
| Jason-Jamal Ligon | Cartwheel |
| Skye Passmore | Whirlpool |
| Abby Holland | Triangulum |
| Daniel Sakamoto-Wengel | Andromeda |
| Evan Phillips | Milky Way |
| Isake Akanke Jeff Hathcoat Kate Jacoby Bryan Montemayor Lee Osorio ² Mary Lynn Owen | Monday Night Development Workshops Readers* |

DEVELOPMENT

| Date | Туре | Site | Specifics |
|----------------------|---------|------------------------------|--|
| 2017 | Idea | Michigan State | Edwin Loh's AST 308 Galaxies and Cosmology |
| 2020 8-15 | Writing | Working Title Playwrights | Addae Moon's Master Class, "Generating Story Idea" |
| 2020 10-5 | Reading | Working Title Playwrights | Monday Night Critique Sessions #1-3 |
| 2020 12-7 | Reading | Working Title Playwrights | Monday Night Critique Sessions #17 |
| 2021 2 - 1 | Reading | Working Title Playwrights | Monday Night Development Workshops #6-8 |

SYNOPSIS

An astrophysics epic, ELLIPSES centers on the Galaxy family and their quest to undo the Big Bang, after a member sets it off. This coming-of-age musical follows a teenager and their dog running away from home. SPT0615-JD and Gravity, a tidal force, journey to the Edge of our Universe. The story explores the Big Crunch Theory and Hubble's Law, which states that Galaxies must distance from the Center. They are like human beings, as we want to get out and explore. The analogy is expressed through these cosmic personifications. The set has a Dome Home to represent the Center, the stage is space, and the fourth wall is the Edge. The Universe is told through the relative experience.

The teenage Galaxies begin their routine by scoping out the Edge ("Bounce"). Their parent calls them up for supper. Singularity nurtures them and their tidal dogs, but a child is missing at the table ("Crunch"). JD still looks out, tangentially wanting to go to the Edge ("Cutting Edge"). However, Singularity speaks of its perils and sends them to bed ("Fixed Stars"). Letting JD out of bed, Triangulum outlines their family values ("Anomaly is Everything"). Eager for a voyage anyways, JD finds Singularity's Big Bang Taser stashed under the rug, and deems the fabric of spacetime to be just as sturdy ("Zilch"). Later, Singularity assesses their children's black-hole hearts ("Luminous"). With this being the final straw, JD strikes their parent with the Big Bang Taser. Singularity goes lifeless. In the chaos, Gravity discreetly picks up Singularity's dislodged eye. Then, JD flees with Gravity to the Edge, but the Edge keeps distancing. It is like a rolled-up rug that JD keeps rolling away ("Big Bang").

Triangulum decides to journey out to the Edge with Andromeda. They instruct Cartwheel and Whirlpool to babysit Milky Way and feed the dogs. However, Cartwheel and Whirlpool heads out as well. Elsewhere, JD and Gravity are on an adventure ("Verse"). Soon, Cartwheel and Whirlpool decide to return home ("Time is Relative"). They come to find that Milky Way is missing and the dogs are unfed and upset ("Spaghetti Horizon"). Isolated and alone, Milky Way speaks to their planetary friends ("Warp, Waves, and Wrinkles"). Eventually, Triangulum and Andromeda find Milky Way in an exhausted state ("Globular"). Apparently, the Solar System has developed into a swelling. Despite Triangulum's objections, Andromeda comes to the aid of Milky Way. As a response, Milky Way becomes a Quasar ("Fabric").

A trillion years pass, and JD and Gravity are still traversing space. They find time to play fetch, and Gravity catches on JD's fugue. Through a stellar speech, Gravity explains that the point of return is far-fetched. When retrieving a star, Gravity accidentally fetches over Singularity's eye ("Far-Fetched").

From the Center, Singularity awakens ("Point").

In the following act, Singularity's backstory is evaluated as they ran away from their own Universe ("Heat Death"). Presently, JD and Gravity discuss their history as they know how to communicate. Soon, most siblings have clustered together ("Bounce Back"). They reach JD and Gravity, and take them in. JD dreams to do what their parent did ("Apparent"). Triangulum threatens to stop JD from doing so and Whirlpool destroys JD's scope ("The Scope of Things"). However, Gravity calls a wave of tidal forces to their location and they escape ("Big Rip"). Singularity comes to their rescue ("It's About Spacetime").

An eternity passes, and JD is lost more than ever without their scope. They have hit a wall while looking for the Edge. Gravity believes that one can overcome by relaxing ("Parallax"). In that spirit, the Edge unveils ("Tangent"). Surrounded by spectacles that reminds them of family, JD decides to head back and take the Edge with them. Gravity feels betrayed as they fought hard for the wide-open space, only for it to be a singularity again. They run away and JD is left returning home alone ("..."). JD tries to give back Singularity's eye when they return. However, Singularity cannot forgive JD. JD jumps off the Ellipse ("Shed Light"). In these millennia of grief, the siblings hold each other close ("*"). Singularity takes in their eye, restoring their depth perception. Singularity looks beyond. JD sheds light in an ellipse full of Galaxies. ("Hearts in the Right Place").

All of a sudden in JD's honor, Gravity returns with a wolfpack. The Galaxies and the tidal forces end time in this epic showdown ("The Spaghettification of Zenith"). When all is lost, Singularity and their Galaxies pray at their table in the Center of our Universe as the tidal forces consume them ("Big Crunch"). In the darkness, a bang is seen and heard again ("Big Bounce").

The supermassive heart of the story is the Big Bang Theory and finding oneself after it, as an anomaly and a family.



CHARACTER BREAKDOWN

 \circ Androgyny and Astronomy \circ

| SINGULARITY The relativistically impossible single parent. Singularity wants to keep the oneness of the Universe. GRAVITY A tidal dog. Gravity wants to ground the wide-open space. SPT0615-JD Embryonic Galaxy Young Adult The distant galactic sibling. JD wants to shed light and be apparent to the lightless. CARTWHEEL Ring Galaxy Teenager The aerobic galactic sibling. Cartwheel wants to earn their ring. WHIRLPOOL Grand-Design Spiral Galaxy Teenager The anaerobic galactic sibling. Whirlpool wants to spiral into risk control. TRIANGULUM Spiral Galaxy Teenager The jingoistic galactic sibling. Triangulum wants to be the role model. ANDROMEDA Spiral Galaxy Teenager The scenic galactic sibling. Andromeda wants to find the pearl in this universal oyster. MILKY WAY Barred Spiral Galaxy The angelic galactic sibling. MILKY Way wants to make themself useful. Ensembles TIDALS SOLAR SYSTEMS SUN (Singularity) Earth (ensemble) Jupiter (Whirlpool) Saturn (Cartwheel) Uranus (Triangulum) Eris (JD) Oort Cloud (Andromeda) | Character | Nature | Identity |
|---|------------------|---|------------------|
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| TIDALS SOLAR SYSTEMS Sun (Singularity) Earth (ensemble) Jupiter (Whirlpool) Saturn (Cartwheel) Uranus (Triangulum) Eris (JD) MULTIPLICITIES Invariant Abell* | The angelic gala | ctic sibling. | Preteen |
| Sun (Singularity) Earth (ensemble) Jupiter (Whirlpool) Saturn (Cartwheel) Uranus (Triangulum) Eris (JD) | Ensembles | | |
| | TIDALS | Sun (Singularity) Earth (ensemble) Jupiter (Whirlpool) Saturn (Cartwheel) Uranus (Triangulum) Eris (JD) | Invariant Fix |

ABELL 2261 Elliptical Galaxy Onlooker
An anomalous galactic sweetheart beyond the Edge of the Universe. Abell is JD's timely loved one in the audience. They may not have a heart or a supermassive black hole, much like the Multiplicities.

BRIGHT IDEA*

TIDALS

Tidals are tidal forces personified as canines. Over the course of the story, the dogs evolve into wolves.

The barks and woofs of Tidals are uttered by barking: "Force." Their howls are uttered by howling: "Fall." Singularity and most Galaxies cannot converse with the Tidals. Along JD's and Gravity's voyage to the Edge of the Universe, JD eventually understands the tidal language.

SOLAR SYSTEMS

Solar Systems are celestial bodies that speak to Milky Way when they wander the Universe alone. They are like imaginary friends, before these planetary friends physically come to life as puppets and dancers. During the first act, they speak for several billion years (quarter-hour staging time) before the Sun becomes a red giant (zit). Any set of cast members may voice the general Solar System. The principal casts are marked in parentheses for convenient doubling.

MULTIPLICITIES

Multiplicities are coupled Galaxies seated in the audience of the theatre. Invariant and Fix are Singularity's parents. Singularity was born and raised by them in another universe. In that Universe, Galaxies do not have a heart and are constantly shedding light. Singularity was an anomaly there, as they hold light within their inescapable heart. Big Bang Tasers are produced by these Multiplicities, as they are laws of physics enforcers in a universe made up entirely of electricity. In "Heat Death," the Multiplicities cry out for Singularity, after Singularity runs away to our Universe.

MUSICAL NUMBERS

| # 12 | Page | Title | Characters | oPresent but unvocal |
|------|------|---------------------------|---|---|
| 1. | 16 | Bounce | JD CARTWHEEL WHIRLPOOL TRIANGULUM ANDROMEDA MILKY WAY SINGULARITY | |
| 2. | 24 | Crunch | SINGULARITY CARTWHEEL WHIRLPOOL TRIANGULUM ANDROMEDA MILKY WAY <i>JD</i> <i>GRAVITY tidals</i> | |
| 3. | 25 | Cutting Edge | JD CARTWHEEL WHIRLPOOL TRIANGULULM ANDROMEDA MILKY WAY <i>GRAVITY</i> <i>SINGULARITY</i> | |
| 4. | 33 | Fixed Stars | SINGULARITY WHIRLPOOL <i>JD CARTWHEEL</i> TRIANGULUM ANDROMEDA MILKY WAY | |
| 5. | 40 | Anomaly is Everything | TRIANGULUM JD | |
| 6. | 43 | Zilch | JD tidals | |
| 7. | 48 | Luminous | | CARTWHEEL WHIRLPOOL ROMEDA MILKY WAY |
| 8. | 50 | Big Bang | JD SINGULARITY GRAVITY WHIRLPOOL CARTWHEELTRIANGULUM ANDROMEDA MILKY WAY tidals | |
| 9. | 64 | Verse | JD <i>GRAVITY</i> | |
| 10. | 74 | Time is Relative | CARTWHEEL WHIRLPOOL | |
| 11. | 83 | Spaghetti Horizon | CARTWHEEL WHIRLPOOL tidals SINGULARITY | |
| 12. | 90 | Warp, Waves, and Wrinkles | MILKY WAY solar systems | |
| 13. | 96 | Globular | ANDROMEDA TRIANGULUM | |
| 14. | 99 | <u>Fabric</u> | TRIANGULUM ANDROMEDA MILKY WAY tidals | |
| 15. | 107 | Far-Fetched | GRAVITY JD | |
| 16. | 112 | Point | SINGULARITY multiplicities tidals | |
| 17. | 116 | Heat Death | SINGULARITY multiplicities | |
| 18. | 130 | Bounce Back | CARTWHEEL WHIRLPOOL TRIANGULUM ANDROMEDA MILKY WAY | |
| 19. | 149 | Apparent | JD <i>ABELL</i> | |
| 20. | 153 | The Scope of Things | TRIANGULUM CARTWHEEL WHIRLPOOL MILKY WAY JD GRAVITY ANDROMEDA | |
| 21. | 156 | Big Rip | JD GRAVITY CARTWHEEL WHIRLPOOL TRIANGULUM ANDROMEDA MILKY WAY tidals | |
| 22. | 159 | It's About Spacetime | SINGULARITY CARTWHEEL WHIRLPOOL TRIANGULUM ANDROMEDA MILKY WAY | |
| 23. | 164 | <u>Parallax</u> | GRAVITY JD | |
| 24. | 167 | Tangent | JD GRAVITY | |
| 25. | 172 | ••• | GRAVITY tidals <i>JD</i> | |



| # 12 | Page | Title | Characters | oPresent but unvocal |
|------|------|-----------------------------------|--|--|
| 26. | 181 | Shed Light | JD SINGULARITY GRAVITY TRIANGULUM CARTWHEEL WHIRLPOOL ANDROMEDA MILKY WAY | |
| 27. | 185 | * _ | WHIRLPOOL ANDROMEDA CARTWHEEL MILKY WAY TRIANGULUM SINGULARITY | |
| 28. | 187 | Hearts in the Right Place | JD SINGULARITY TRIANGULUM ANDROMEDA MILKY WAY WHIRLPOOL CARTWHEEL ABELL multiplicities | |
| 29. | 188 | (The Spaghettification of) Zenith | • | TY CARTWHEEL WHIRLPOOL MEDA MILKY WAY tidals |
| 30. | 196 | Big Crunch | SINGULARITY WHIRLPOOL CARTWHEEL TRIANGULUM ANDROMEDA MILKY WAY <i>tidals</i> | |
| 31. | 199 | Big Bounce | COMPANY | |
| | | Able | ABELL | |

MUSICAL CHARACTERIZATIONS

SINGULARITY| The hums are the longing melodies in "Heat Death": D3-5 B2-4 C#3-5 G#2-4 E2-4 F#2-4 G#2-4 F#2-4

TRIANGULUM | Associative Instruments: Triangle, Handbell

MILKY WAY | Associative Instrument: Cowbell (may be attached to Milky Way's physicality or personality)

CARTWHEEL | Associative Instruments: Jingle Ring Tambourine, Jingle Bell

ABELL| Leitmotif from "Able" whenever Abell is focused upon. "Able" is in the second phrase in "Hearts in the Right Place."

SCENES

| Act | Page | Location | SET props |
|-------|------|--------------------------------|--|
| Ii | 15 | The Center of the Universe | DOME HOME RUG (dark) SEATS (7) TABLE balls Big Bang Taser dishes knapsack monoculars (2) snow globe whoopie cushion |
| Iii | 64 | The Fabric of Spacetime | FIELD EQUATIONS (including f = ma, $v = H_0 D$, $\Delta t = (\Delta t_0) / \sqrt{1 - v^2 / c^2}$ knapsack magnolia flowers(2) monoculars(2) |
| Iiii | 83 | The Center of the Universe | DOME HOME RUG SEATS (6) TABLE Singularity's body glasses on the rug |
| Iiv | 85 | The Fabric of Spacetime | balls knapsack monoculars(2) dishes eyeball |
| Iv | 112 | The Center of the Universe | DOME HOME SEATS(1) TABLE RUG glasses on the rug |
| Iii | 116 | Singularity's Past Universe | DOME HOME Big Bang Taser fabric(dark) |
| Iiii | 126 | The Fabric of Spacetime | balls eyeball knapsack |
| Iiiii | 141 | The Continuum Checkpoint | 3 DOMES[left: doghouse, central: sleeping quarters, right: command post] balls knapsack snow globe |
| Iiiv | 161 | The Fabric of Spacetime | FIELD EQUATIONS (including d = 1 / p) balls |
| Iiv | 167 | The Edge of the Universe | ENCHANTED AND SOFT UNIVERSE balls |
| Iivi | 174 | The Center of the Universe | DOME HOME RUG SEATS(6) TABLE Big Bang Taser mirror snow globe |
| III | 199 | A Fresh Universe | DOME HOME RUG SEATS (6) TABLE balls knapsack snow globe |



SETTINGS

THE CENTER OF THE UNIVERSE

Pre-Big Bang & Big Bounce

Post-Big Bang



