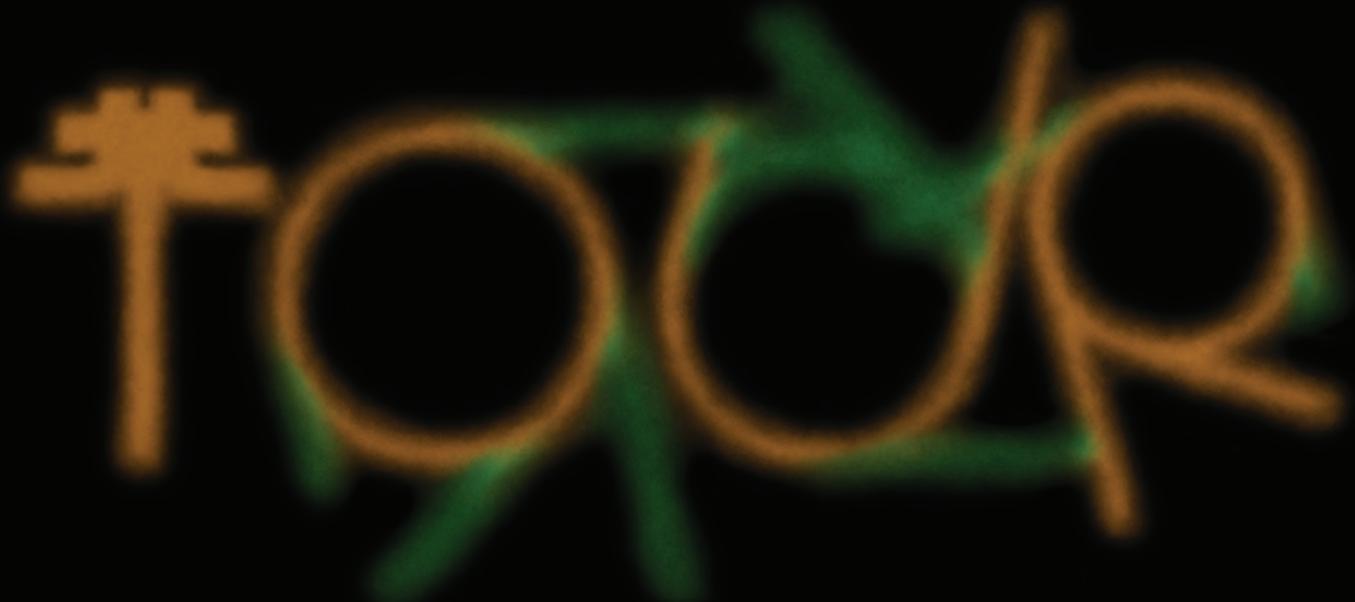


# DIRECTOR'S SCRIPT

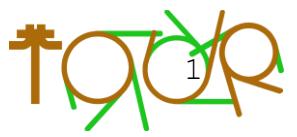


Book, Music, and Lyrics  
DAVID QUANG PHAM

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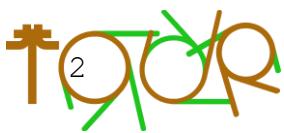
TOUR

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A Quantum Opera

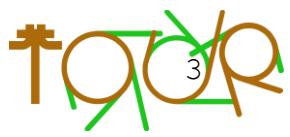
by

David Quang Pham



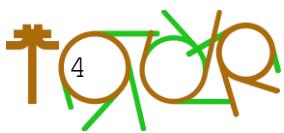
## THANK YOU

Name	Role
Emily Johnson	Data Scientist
<u>Marcos "Danny" Caballero</u>	Professor of Electromagnetism
<u>Janelle Lawrence</u>	Operatic/Musical Mentor
<u>Kristin Idaszak</u>	Science Playwriting Mentor
<u>Jacqueline Goldfinger</u>	Playwriting Mentor
Haley Baird	Originated Reader of Quark
<u>Bianca Waechter</u>	Originated Reader of Lepton
Peter Louis Epstein	Originated Reader of Boson
Carina Goebelbecker	Originated Reader of Atom
<u>Monica Cross</u>	Originated Reader of the ensembles
<u>Kami Visitsak</u>	Originated Singer of Quark
Diana Easter	Originated Singer of Lepton
<u>Brian Egland</u>	Originated Singer of Boson
Rina Lubit	Originated Singer of Atom



## DEVELOPMENT

Date	Type	Site	Specifics
2015	Idea	Fermilab	The spark of love for particle physics
2019 12	Finalist (Festival)	Downtown Urban Arts Fest, NYC	Reg E. Gaines helped restructure the story <a href="http://tourmusical.com/events/2020-12-3">tourmusical.com/events/2020-12-3</a>
2020 3 -	Workshop	Art Talk & Chill	Monday morning and evening sessions by Janelle Lawrence
2020 3 -	Workshop (Writing)	Harlem Neighborhood	Saturday meetings by Bentley Whitfield <a href="http://meetup.com/Harlem-Neighborhood-Writers">meetup.com/Harlem-Neighborhood-Writers</a>
2020 3 - 7	Workshop	Beat-the-Plague Playwriting	Weekly sessions by Jacqueline Goldfinger <a href="http://m.bpt.me/event/4555137">m.bpt.me/event/4555137</a>
2020 4-24	Reading (Table)	The 24 Hour Plays	Hosted by Madelyn Paquette <a href="http://tourmusical.com/events/2020-4-24">tourmusical.com/events/2020-4-24</a>
2020 5-16	Reading (Table)	S.I.S.R!	Hosted by Michael Perrie Jr and Lacy Reily <a href="http://tourmusical.com/events/2020-5-16">tourmusical.com/events/2020-5-16</a>
2020 6 -	Roundtable	Musical Theatre Factory	Monthly POC Roundtable
2020 7-17	Reading (Table)	CreateTheater ETC	Hosted by Cate Cammarata <a href="http://tourmusical.com/events/2020-7-17">tourmusical.com/events/2020-7-17</a>
2020 7-24	Concert/ Roundtables	Musical Theatre Factory	POC Roundtable Representative at Cabaret on the Couch <a href="http://tourmusical.com/events/2020-7-24">tourmusical.com/events/2020-7-24</a>
2020 8-29	Reading (Table)	S.I.S.R!	Hosted by Michael Perrie Jr and Lacy Reily <a href="http://tourmusical.com/events/2020-8-29">tourmusical.com/events/2020-8-29</a>



## SYNOPSIS

A physics fable, TOUR is an operatic musical that experiments with tango, pop, choral, and four particles named Quark, Lepton, Boson, and Atom. These standard particles collide and compete with one another in the physics academic and professional field. By the end of act one, they all pass college and get jobs at the particle accelerator. At the end of act two, they all die in the accelerator and rise as God Particles.

The characters are particles, who are searching to become perfect. In physics, particles seek out supersymmetry. Particles want to be perfect spheres. Not unlike a human being. We want to be well rounded. The analogy is told through personifications of the particles in a nuclear reactor. Their types and class structure are costumed as human students and professors. TOUR is about who makes you rounded: particles and educators.

Quark spends the first act trying to become a physicist. In the second act, she is trying to be the best physicist. Her battered journey relates to the plot because it reinforces the journey of becoming well rounded. Atom spends the first act trying to be the caretaker for the physics community. In the second act, they believe Quark to be the cause of instability in the world. Their increasing instability relates to the plot because it reinforces that all particles want to be well rounded and spherical, but some accidentally believe others are stopping them from achieving that goal. Lepton spends the first act trying to stay spirited as a particle physicist. In the second act, she tries not to decay/kill herself. Her negative charge and depression relate to the plot because it reinforces that she seems to be initially well rounded out of all the characters but still needs to overcome their demons to get to their goal. As the light particle, Boson spends the first act trying to have power over all particles. In the second act, he recognizes that his influence on the physics community has moved on. His maliciousness relates to the plot because his well-rounded authority in the academic-career chain and as a particle should be all the particles' wants and desires. The world of physics is told through the human experience.

The first act transcends the particles from college to career or from ground states to energy states. This follows Quark, an exchange student, as she graduates from her undergraduate degree to her doctorate. During her pursuit to be a physicist, she

concentrates on magnetic physics and attracts Professor Boson. He soon advances on her, so she rejects. He retaliates by ensuring that there are no paths to a career in physics and she experiences enlightening obstacles. As trouble ensues, she is taken under the wings of her doctoral advisor, Lepton. She encounters trials as a teaching assistant and career seeker. Ultimately, she winds down magnetic physics and accepts particle physics, within herself. By the end of the first act, Quark is granted her PhD.

The second act transcends the particles from career to death or from standard models to supersymmetry. This follows Quark, a recently hired technician, as she rises from being a subordinate to being the director of the Accelerator. In the Accelerator, Atom is a subordinate, Lepton is its supervisor, and Boson leads as the director. As Quark gets the respect she deserves from fellow technicians, Atom grows unstable and Boson loses his influence on the world of physics. When Boson resigns and hands his position to Quark, Atom takes matters into their own hands. In the end, the principal particles kill each other and reincarnate as God Particles.

Education and opposition lead to well-roundedness.

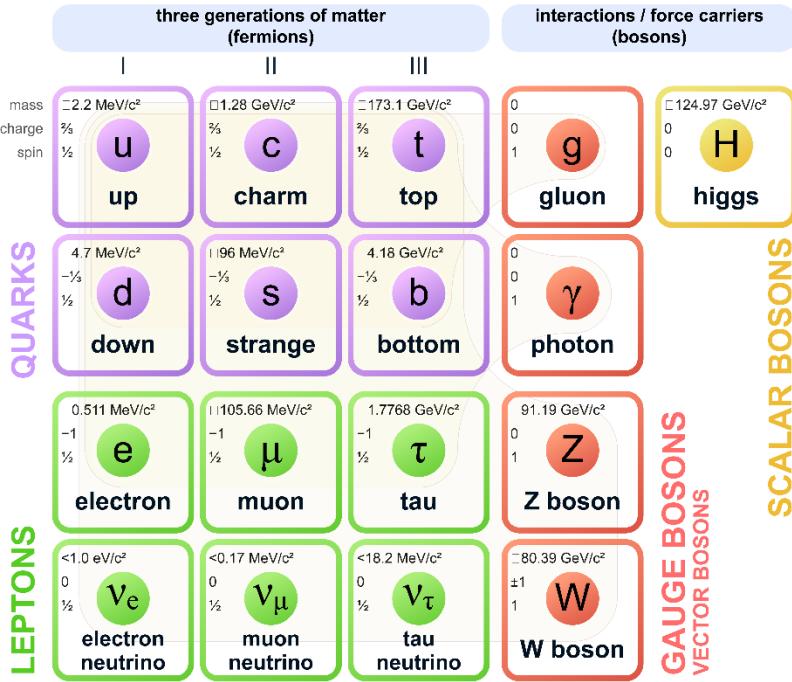
## CHARACTER BREAKDOWN

**Workshops/Productions:** Casting the principal characters from underrepresented racial minorities are not recommended. Casting the principal characters from underrepresented racial minorities are required.

Character	Vocal Tone & Range
<u>QUARK</u> A student and physicist. Quotidian, Ubiquarian, Antiscian, Rachidian, K?	Musical Mezzo-Soprano
<u>LEPTON</u> A doctoral advisor and lab supervisor. Leaves Electricity Proportional To Obscure Negativity.	Musical Alto
<u>BOSON</u> A professor and lab director. Bright Or Sanctimonious Or Narcissistic.	Musical Baritone – Tenor
<u>ATOM</u> A scholar and right-hand scientist. Accomplished, Teetering, Outstanding Mess.	(Unstably) Operatic

Ensemble
- STUDENTS - TECHNICIANS
- RESEARCH ASSISTANTS - POLITICIANS
- PROFESSORS - PARTICLES

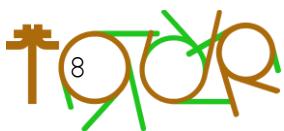
## Standard Model of Elementary Particles



## SCENES & SET DESIGNS

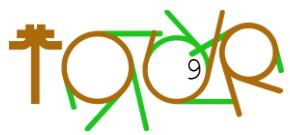
Act	Page	Location	SET props
I	8	University	PARTICLE BOARD displays a schedule, holds a box of tacks, hides a field line diagram desk holds horseshoe magnets(4+) with a note stuck to a magnet, a field line diagram, a packet, a pen, a thesis, a decorative box hiding a magnet  tambourine, packets, scantrons, papers, alarm
II	54	Desertron	ABANDONED PARTICLE ACCELERATOR operator's control, cash
III	76	Magnet Factory	PARTICLE BOARD displays tacks desk holding magnets, metals, a light bulb, wire packets
II	88	Accelerator	COLLIDER treasures, papers, pens, operator's control, magnets
III	129	Quantum World	COLLIDER





## MUSICAL NUMBERS

♪#	Page	Title	Character(s)
1.	11	<a href="#"><u>Eigen</u></a>	ATOM
2.	12	<a href="#"><u>Symmetry</u></a>	LEPTON BOSON ATOM students
3.	14	<a href="#"><u>Exchange Particle</u></a>	QUARK ATOM
4.	17	<a href="#"><u>Torsion</u></a>	QUARK LEPTON
5.	18	<a href="#"><u>Available Energy</u></a>	QUARK
6.a.	20	<a href="#"><u>Tachyon</u></a>	QUARK LEPTON BOSON ATOM students
7.	26	<a href="#"><u>Nuclide</u></a>	QUARK BOSON ATOM
8.	27	<a href="#"><u>Entanglement</u></a>	QUARK BOSON
9.	29	<a href="#"><u>Crossing Field Lines</u></a>	QUARK BOSON
10.	31	<a href="#"><u>Centration</u></a>	QUARK BOSON research assistants
11.	35	<a href="#"><u>G</u></a>	QUARK LEPTON ATOM professors
12.	40	<a href="#"><u>Anyon</u></a>	QUARK
13.	40	<a href="#"><u>Valence</u></a>	QUARK LEPTON ATOM students
14.	55	<a href="#"><u>Effusion</u></a>	QUARK
15.a.	57	<a href="#"><u>Super Collide</u></a>	QUARK LEPTON technicians
16.	62	<a href="#"><u>Particulate</u></a>	QUARK ATOM technicians
17.a.	63	<a href="#"><u>Slepton</u></a>	QUARK BOSON ATOM politicians
18.	73	<a href="#"><u>Backscatter</u></a>	QUARK LEPTON
19.	75	<a href="#"><u>Charge</u></a>	QUARK LEPTON ATOM
20.	79	<a href="#"><u>Electroform</u></a>	QUARK ATOM technicians
21.	85	<a href="#"><u>Remanence</u></a>	QUARK
22.a.	86	<a href="#"><u>Preon</u></a>	QUARK LEPTON
23.	91	<a href="#"><u>Mole</u></a>	QUARK LEPTON BOSON technicians
24.	91	<a href="#"><u>Elementary Particle</u></a>	QUARK ATOM
25.	97	<a href="#"><u>Bring the Conductivity</u></a>	QUARK LEPTON
26.	98	<a href="#"><u>Mass Charge Spin</u></a>	QUARK LEPTON BOSON ATOM
27.	99	<a href="#"><u>Quantum</u></a>	QUARK LEPTON BOSON ATOM technicians
28.	105	<a href="#"><u>Fusion</u></a>	QUARK BOSON ATOM
29.	106	<a href="#"><u>Synchrotron</u></a>	QUARK BOSON technicians
30.	110	<a href="#"><u>Hypercharge</u></a>	QUARK LEPTON ATOM technicians
31.	112	<a href="#"><u>Isospin</u></a>	QUARK LEPTON BOSON ATOM



¶#	Page	Title	Character(s)
32.	114	<a href="#"><u>Subatomic</u></a>	QUARK ATOM technicians
33.	118	<a href="#"><u>Meson</u></a>	QUARK BOSON ATOM
34.	120	<a href="#"><u>Pion</u></a>	QUARK ATOM
35.	121	<a href="#"><u>Deuterium</u></a>	QUARK ATOM
36.	121	<a href="#"><u>Electron</u></a>	QUARK LEPTON technicians
37.	124	<a href="#"><u>Positron</u></a>	QUARK BOSON
38.	127	<a href="#"><u>Fission</u></a>	QUARK BOSON ATOM
39.	127	<a href="#"><u>Parity</u></a>	QUARK BOSON technicians
40.	129	<a href="#"><u>Baryon</u></a>	QUARK LEPTON BOSON ATOM
41.	132	<a href="#"><u>Decay</u></a>	QUARK LEPTON BOSON ATOM particles
42.	133	<a href="#"><u>Supersymmetry</u></a>	QUARK LEPTON BOSON ATOM particles
43.	134	<a href="#"><u>Knot</u> (bow)</a>	COMPANY



ACT I

## 1. EIGEN

SCENE i

[University]

(ATOM arrives, irregularly playing a tambourine. They shakily quantum tango.)

**ATOM**

Oscillations. Know what? What is *what* made of? *Who?* I make up things as usual. I am just filled with protons!

(Depressing.)

Electrons...

(Shrugging.)

Neutrons.

(Demonstrating the tambourine.)

You're on an electromagnetic field trip. Who's ecstatic for the atom smasher?! That'll be halfway, after we grab our subs.

(Holding a zill of the tambourine.)

First, we are going to review some scientific principles.

(Twirling their finger around the tambourine.)

We'll circle around. To you, it'll be a blink of an eye. To us, a lifetime of our wave? I'll make up all things along the way. All human stories...

(LEPTON rushes in, carrying the scantrons. She orbits ATOM. She wildly roams around.)

[The space brightens.]

(BOSON restlessly strolls in.)



(*STUDENTS run in and orbit AUDIENCE MEMBERS. They bring in a desk and a particle board, which displays a schedule and holds a box of tacks. They conceal the desk behind the particle board.*)

**ATOM** (cont.)

Full of...

**2. SYMMETRY**

(*STUDENTS disorderedly orbit ATOM.*)

(*ATOM drops hints of their instability.*)

**ATOM**

PARTICLES.  
YOU ARE NOT  
SYMMETRICAL  
PARTLY DUE  
TO ME,  
ATOMIC DISORGANIZATION.

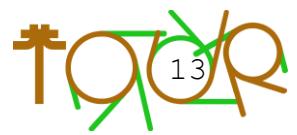
(*LEPTON hands some scantrons to STUDENTS.*)

(*STUDENTS increasingly grow orderly.*)

**LEPTON**

THESE SCHOLARS.  
ALL WILL SPARK  
WELL-ROUNDEDNESS IN  
PART FROM  
SUBJECTS,  
UNCOVERED WITHIN THE SCATTERING.

(*Dumping the scantrons into ATOM's arms.*)



## BOSON

ENLIGHTEN.  
I HEAR NEWS.  
AN EXCHANGE STUDENT.  
BRIGHTER  
THAN ME.  
BE READY FOR A DIFFERENT WAVELENGTH.

*(STUDENTS try to synchronize but are asynchronous.)*

## STUDENTS

SYMMETRY...  
SYMMETRY.  
WE DREAM TO BE WELL-ROUNDED.  
WE'LL BE A PERFECT SPHERE.

*(Barely spinning.)*

## ATOM

PARTICLES.  
*STABLE WORLD.*  
OSCILLATIONS!

*(Greeting the world by waving their arm.)*

PARTLY DUE  
TO ME.  
I MADE YOU, EVERYTHING ABOUT YOU.

*[A colourful presence spills into the space.]*

*(STUDENTS grow synchronous.)*

## STUDENTS

SYMMETRY.  
WE'LL COME AROUND FULL CIRCLE.  
LET US BEGIN THE TOUR.

*(Orbiting AUDIENCE MEMBERS.)*



14

(LEPTON takes the scantrons from ATOM. She scatters away.)

(BOSON intriguingly observes. He departs.)

(ATOM, speechlessly, mouths along the strange and sudden rings of the vibraphone.)

(STUDENTS scatter away.)

(ATOM trip over invisible strings and lose their footing. They run themselves into the particle board to keep balance. They set the tambourine on the desk.)

### 3. EXCHANGE PARTICLE

(QUARK wanders in.)

**QUARK**

ENDED UP IN UNIVERS-TY? ESTABLISH. MEANT  
MAY I JOIN A TOURING CIRCUIT? ELECTRIC- THE  
LABS, DO THEY BEHOLD AND FORESEE?

(ATOM sees through QUARK. They dismiss her.)

ESCAPED IONS.  
WHAT AM I, PART OF? COURSES FULL?

(Holding the tambourine. Humbling herself.)

EXCHANGE.  
IT'S NOT WHO I AM.  
THE REAL ME.  
NOT BEST IN SCIENCE.  
I FORCED MYSELF.

**QUARK** (cont.)

GIVE MY ALL TO PHYSICS.  
MY PARTING GOALS.

**ATOM**

DOWN, UP, BOTTOM, TOP, CHARM, STRANGE.

(ATOM scans the schedule on the particle board.)

QUARK.

(QUARK swiftly rips out the schedule.)

**QUARK**

DID I GET IN...?

(Reading the schedule.)

THE LECTURE TAUGHT UNDER BOSON!  
PUPIL UNDER CHILD PRODIGY! HE WHO MAKES LIGHT  
OF ALL EXPERIMENTS. ENLIGHTENED. NOT SO LONG 'GO  
THAT ATOMS WERE BLOWING MY MIND...

(ATOM takes back the tambourine. They leave.)

(QUARK aches.)

PART OF YOU YANKED ME WITH THIS EX-

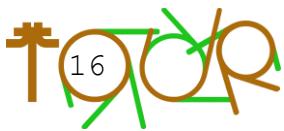
(Ripping apart and dropping the schedule.)

CHANGING,  
DEGREE'S  
SO COLD.

(Nearing the particle board.)

THIS FIELD'S  
HEATED.

(Grabbing a tack from the box.)



**QUARK** (cont.)

CUTTHROAT.

*(Hastily putting the tack back in the box.  
She spills the tacks onto the floor.)*

ACA— DAMN

ME. UP.

*(QUARK kneels. She sensitively picks up the tacks.)*

BOTTOM.

TOP. DOWN.

STRANGE. CHARM.

*(Grabbing the box.)*

STANDARD,

MODELLED

STUDENT.

ACADEMIA.

*(Churning the tacks in her hand. She boldly discards the box. She innovatively pins the tacks onto the particle board. She suddenly feels wedged.)*

STATICS CONSERVE JUST WELL-CONNECTED THEORETICAL PHYSICISTS.

*(Observing the tacks. She moves herself around the space, relative to the formation of the tacks on the particle board.)*

BUT DYNAMICS,

*(Lifting an invisible lever. She elevates.)*

TORQUE ANGLING UNCONNECTED ME TO BEST ALL PHYSICISTS!  
GAIN, LOSE, ELECT ON BEING EXPERIMENTAL!

*(Picking up the schedule. She attaches the schedule to the particle board.)*

MAY NOT GET TO KNOW, BUT IT'LL FLOW, EXPLANATIONS.  
CAN'T WAIT FOR BOSON. WHAT'S IN CORE? HOW'S HIS WORKLOAD?

IDEAS COME SO FAR. MATTERS, THEY WILL COME TO ME.  
PARTICLE BOARD, THANKS FOR THIS EXCHANGE.

(Knocking on the particle board. She promptly gets a move on.)

#### 4. TORSION

(LEPTON strolls in.)

(QUARK collides into LEPTON.)

(LEPTON twists herself into a pretzel.)

**LEPTON**

ДЕРЬМО (der' mo). TORSION.

(QUARK helps LEPTON up.)

TWISTED СУКА (súka).

**QUARK**

MEAN FREE PATH.

MEANT NO HARM.

**LEPTON**

WHY THE RUSHING?

(QUARK tries to flee.)

(LEPTON grabs ahold of QUARK.)

TAKE COURSE LIGHTLY.



## QUARK

A DEGREE  
NEEDS ALL THESE  
TORSIONS, TURNS  
TO BE YOU.

*(LEPTON releases QUARK.)*

## LEPTON

YOU UNDERGRADS...  
THERE'S NO TORSION  
MORE TORTUROUS  
THAN MATTERS THAT  
TRY TO FIT IN.

*(Motioning towards herself.)*

SOON CROWNED DOCTORAL.

*(Directing out.)*

LABS, THEY'RE A BLAST.

*(Adjusting herself.)*

MUST NOT DECAY.  
THE NAME'S LEPTON.

*(Hurrying off.)*

## 5. AVAILABLE ENERGY

## QUARK

AVAILING MASTER  
ENERGIZED FAILED NEWCOMER.  
WE SHARED A DEVOTION, CAREER IN PHYSICS.  
DISTRIBUTION, FIXED  
AMOUNT OF ENDURANCE 'MONGST  
IDENTICAL PERSONS. ACTIVATE KINEMATICS!

*(Disorderly moving about.)*

FREE AVAILABLE ENERGY!  
I'LL ENTAIL THE MECHANICS!

**QUARK** (cont.)

I'LL UPSCALE THE MAGNETICS!  
 I'LL UNVEIL THE DYNAMICS!  
 I'LL AVAIL IN ALL PHYSICS!  
 I'LL PREVAIL AS PHYSICIST!  
 FREE KINETIC ENERGY!  
 NOT DERAILED TRAINING!

(*Focusing her energy.*)

GET LOST IN THE CALCULUS!

(*QUARK rigidly moves about.*)

FREE AVAILABLE ENERGY!  
 I'LL CURTAIL ALL THE LIMITS!  
 I'LL ASSAIL DERIVATIVES!  
 I'LL DETAIL THE STATISTICS!  
 I'LL AVAIL ALL THINGS PHYSICS!  
 I'LL PREVAIL AS PHYSICIST!  
 FREE KINETIC ENERGY!  
 AND NOT FAIL SPIRIT!

(*Condensing her energy.*)

BE FLUID IN MECHANICS!

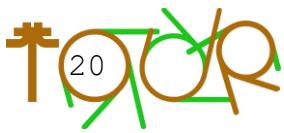
(*Smoothly moving about.*)

FREE AVAILABLE ENERGY!  
 I'LL INHALE GAS WHO ARE QUICK!  
 I'LL EXHALE ALL THAT'S HOMESICK!  
 I'LL ENGAIL THEM WITH MY WITS!  
 I'LL AVAIL THOSE IN PHYSICS!  
 I'LL PREVAIL AS PHYSICIST!  
 FREE KINETIC ENERGY!

(*ATOM and STUDENTS enter.*)

(*QUARK adjusts herself.*)

DON'T BLACKMAIL SCEPTICS.  
 ENTROPIC TIMES THEN  
 CHAOS. PUT WORK AS YOUR PRIME.  
 UNIT IS ALWAYS TIME. A DEGRADATION,



**QUARK** (cont.)

'LECTROSTATICS CLASS.  
AVOID THAT COLLISION COURSE.  
COLLAPSE THROUGH SYNERGY. ENERGIZE POTENTIAL.

**6. TACHYON**

(*QUARK, ATOM, and STUDENTS gather around.*)

(*ATOM speaks after the long silence.*)

**ATOM**

ON BEHALF OF THE TACET.  
PROFESSOR  
IS REAL SHARP AND TACKY-ISH.

[*The space slightly brightens.*]

TRULY BRIGHT AND TACTFUL  
ON TIME,  
BOSON.

**STUDENTs**

HE SHOULD BE FAST AS LIGHT.  
PROFESSION  
LOST ITS MIND, SIGHT OF US ALL.  
HE'S GLUON TO PHOTON?  
W?  
Z...?

**QUARK**

HE'S ANSWERING EMAILS.

(*STUDENTS tap their heads.*)

**STUDENTs**

TACHYONIC.

*[The space intensely brightens.]*

*(BOSON tactfully arrives. He flips the particle board.)*

*[The particle board displays a colourful field line diagram, familiar to the colourful presence earlier.]*

**STUDENT**

PROTONS !

*(BOSON dismisses the answer.)*

*(ATOM tugs at their chest.)*

**STUDENT**

NEUTRONS !

**STUDENT**

ELECTRONS !

*(ATOM lets go of their chest.)*

*[An explosion audibly rings after a long silence.]*



(*QUARK solely hears the explosion.*)

**STUDENT**

PHONONS!

**STUDENT**

BOSON?

(*BOSON seems taken off guard and blushes.*)

**ATOM**

BORONS... COLOUR!

(*STUDENTS ponder.*)

STASIS!

(*STUDENTS hysterically laugh.*)

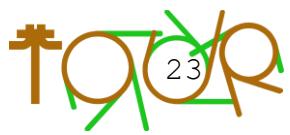
(*ATOM seems brokenhearted.*)

(*QUARK sticks out.*)

(*STUDENTS ponder.*)

**QUARK**

CHROMODYNAMICS.



**BOSON**

TACHYON...

**STUDENTs**

YOU'RE QUARK!

(*BOSON unites QUARK, ATOM, and STUDENTS.*)

**BOSON**

LET IT FLOW.  
DO BUILD YOUR NEST.  
DO THEY ATTRACT  
ATTENTION

**STUDENTs**

'LECTRICITY!  
WITH 'LECTRONICS!  
SO MAGNETIC!

**QUARK**

YOU WOULD LET ME  
BUILD MYSELF IN YOUR  
LABORATORY?

**STUDENTs**

IT'S EXCLUSIVE!  
NO EXPERIENCE!  
SESSION IS FULL!

(*BOSON nods. He pushes the particle board away, revealing horseshoe magnets on a desk.*)

**BOSON**

PERFORM A CONTROLLED EXPERIMENT. FORCE. ATTRACTING.  
USING FERROMAGNETS. PERMANENT DIPOLES. REMOVE FIELDS  
OUTSIDE. DISCIPLES. ADVICE. DON'T REDUCE TO ZERO.  
SPONTANEOUS REACTION. TRY COBALT, YOUR SAKE.  
ELECTRONS. UNPAIRED. COVALENT.

**STUDENTs**

TAU!

(*Scattering. They each grab a magnet.*)



(A STUDENT points their magnet at another STUDENT.)

**STUDENT**

COMPASS FACES...

**STUDENTS**

ATTRACTION HERE!

(A different STUDENT directs their magnet to another STUDENT.)

**STUDENT**

YOUR FRIDGE RUNNING?

**STUDENTS**

HA, CAUSE MAGNETS!

(ATOM reaches for another STUDENT.)

**ATOM**

YOU SEE, MAGNATE.

**STUDENTS**

STILL THE BORON!

(BOSON takes two magnets. He extends one to QUARK.)

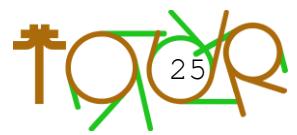
**BOSON**

PARAMAGNET?

**QUARK**

I WOULD BE HONOURED.

(Accepting the magnet.)



**STUDENTs**

OH INDUCTANCE!

**QUARK**

SAY, WE'RE 'TRACTED.

**STUDENTs**

A LITTLE FORCED!

**BOSON**

REPEL!

*(Each pair of STUDENTs distance themselves, forming magnetic formations. In hand, they dance with magnets facing each other.)*

*(LEPTON passes the experiment. She appears enjoyably disheveled. She takes a brief moment to orbit ATOM.)*

*(QUARK seems distracted by LEPTON. She increasingly repels away from BOSON.)*

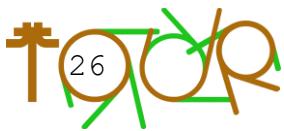
*(Their experiment concludes.)*

**6a. TACHYON (reprise)**

*(BOSON notices the note attached to his magnet. He detaches and reads the note.)*

**BOSON**

I HAVE BEEN CHOSEN, DIRECTOR OF THE ACCELERATOR...



## STUDENTs

PLEASE DO NOT GO!  
WE'LL ALL MISS YOU.  
CONDUCTIVITIES.  
PROFESSOR'S SPEECHLESS.  
THINK IT OVER!

(*BOSON waves STUDENTs off.*)

WE WILL REPEL!

(*Departing.*)

## 7. NUCLIDE

(*QUARK heads over to the desk. She writes a thesis.*)

## ATOM

PERHAPS YOU COULD STAY LONGER IF YOU TRIED  
SUPERPOSITION?  
MASSLESS APPEALS DOES NOT LEAVE US TO BE TIGHTLY  
BINDING.  
ENERGY STATES OUR STABILITY ALONG THE YEARS HAVE BEEN  
A NUCLIDE, A RIDE.

(*Growing disheartened at the sight of QUARK.*)

## BOSON

BORON WAS WHAT OTHERS COULD ONLY SEE WITHIN  
YOURSELF.  
FIVE POSITIVE, NEGATIVE, NEUTRAL SENSES WITHIN YOU.  
ATOMIC RADIOACTIVITY DOESN'T HAVE TO HIT YOU, JUST LET  
THIS SLIDE.

(*Embracing ATOM.*)

**ATOM**

AT LEAST YOU SAW ME AS A SYMBOL BESIDES JUST A NUMBER.  
BEFORE YOU LEAVE, YOU'RE GENEROUS TO PROVIDE ME SOME  
LIGHT.

*(Splitting from BOSON.)*

THANK YOU FOR THE RECOMMENDATIONS TO LEVELS AMONGST  
GRAD SCHOOL'S NUCLIDES, HALF-LIFE.

*(Departing.)*

**BOSON**

PICK UP MANY POSITIVE CIRCLES FOR A CHANGE, WILL YOU?!  
ATOM, YOU DO MATTER AND MAKE THE BEST OF EVERYTHING.  
YOU ONCE THEORETICALLY DID AND NOW WHAT'S LEFT IS TO  
DEAL WITH THIS NUCLIDE?

*(Focusing on QUARK.)*

**8 . ENTANGLEMENT**

*(QUARK shows and gifts the thesis to BOSON.)*

*(BOSON reads the thesis.)*

**BOSON**

ÉTUDE THÉORIQUES DES MAGNÉTIQUE MOLÉCULAIRES (e-tude  
there-reek des mag-ne-teak mo-le-cu-lairs).

*(Setting aside the thesis.)*

FLUXING DOWN AN UNDERGRADUATE THESIS?

*(QUARK nods.)*

LEFT COLLEGE IN FRACTION OF TIME BUT STILL PROUD,  
YOU MAY JUST PROFESS

*(Mitioning towards himself. He is in the  
mood to quantum tango.)*

**BOSON** (cont.)

IN NO TIME.  
ARE YOU INTO QUANTUM ENTANGLEMENT?  
STILL MAGNETIC EXCITATION TO BE FOUND.  
YOU GIVEN PICKING UP PHOTONS FOR A CHANCE?  
A COUPLED QUBITS?

*[Visuals of cupid-like particles roam about.]*

LITTLE HIGH ENERGY.

*(Grabbing a magnet. He points the magnet at QUARK. He chuckles. He sets down the magnet.)*

MAGNETIC, BARS, MOMENTS.

*(Shaking QUARK.)*

WHEN WE'RE YOUNG, MAKING WAVES.  
PARTICLE HORIZON'S A FLASH,

*(Releasing QUARK.)*

REACH ENLIGHTENMENT.

*(QUARK distances.)*

JUST A PARTICLE ROAMING IN A VACUUM.  
FOUND A PART OF US REACH SUPERPOSITION.  
MAGNET-FOCUSSED AND COME ON PARTICLE BOARD.

*(Attaching the particle accelerator blueprints to the particle board.)*

EXCEL IN THE ACCELERATOR.

*(Forcing QUARK to attach the field line diagram to the particle board.)*

RESEARCH COLLABORATION.  
INDEPENDENT SCHOLAR.  
VACUUM, THERE'S NOTHING TO PROVE—  
'VIDE THAT STEM GRANTS FOR YOU.

**BOSON** (cont.)

DISCOVERIES. SYMMETRY.  
THE JOURNEYS. QUITE LOOPY.

(*QUARK eyes the field line diagram.*)

(*BOSON pulls out the decorative box from the desk. He gets on one knee in front of QUARK.*)

FIELD THEORIES PROPOSED, WILL YOU

(*Opening the box, revealing a magnet.*)

QUANTUM ENTANGLE ME?

### 9. CROSSING FIELD LINES

**QUARK**

BOSON.  
BOSON...  
FIELD LINES.  
FIELD LINES...  
ARE CROSSED.  
ARE CROSSED...  
FIELD LINES SHALL NEVER BE CROSSED.

(*Pointing to the field line diagram.*)

THE FIELD LINES HERE, CROSSED.

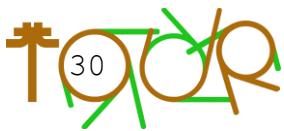
**BOSON**

I CROSSED?

(*Extending his arm to QUARK.*)

I CROSSED?

(*QUARK draws the line with her fingers.*)



30

**BOSON** (cont.)

I CROSSED?

*(Crossing the line.)*

ENTERED.

*(Pointing out the space.)*

YOU ENTERED.

*(Pointing to his temple.)*

YOU ENTERED.

*(Pointing to his heart.)*

WE LOOP.

*(Walking in a helix-like path.)*

WE LOOP.

*(Pacing back and forth.)*

MONOPOLES.

*(QUARK disapproves.)*

MONOPOLES...

CROSSED FIELD LINES.

*(Retreating to the desk.)*

END TOUR.

END TOUR.

END TOUR.

END OUR...

END OUR TOUR.

END OUR TOUR.

**QUARK**

YOU ARE MOVING TOO FAST FOR ME...

*(Mitioning to herself.)*

**QUARK** (cont.)

I'M RANDOM...  
OUR FIELD LINES CAN'T EVER BE CROSSED.

(*BOSON grabs the thesis. He takes a pen. He crosses the thesis with a stroke of the pen. He hands the thesis to QUARK.*)

(*QUARK grows enraged. She hesitantly discards the thesis. She silently expresses that she has the grit to finish her degree.*)

#### 10. CENTRATION

(*BOSON takes out a physics packet. He throws the packet at QUARK.*)

**BOSON**

TENURE AS PROFESSOR ENDS LATER. EVERY LECTURE,  
LABORATORY, COLLOQUIUM. YOUR SCHOOLING WILL FEEL LIKE  
TEN YEARS.

(*QUARK picks up the packet.*)

COULD YOU CONCENTRATE?  
STUDENT.

(*QUARK begins solving.*)

OH, YOU INFURIATE.  
R. A'S.  
DETERIORATE.  
CONCEN—



(RESEARCH ASSISTANTS march in, holding packets.)

**BOSON**

**RESEARCH ASSISTANTS**

'TRATE.

(RESEARCH ASSISTANTS stand by BOSON.)

**RESEARCH ASSISTANTS**

IN COMES INTERACTION.

OH THE NUCLEATION.

A PLASMIC COLLISION.

(Singularly throwing a packet at QUARK.)

IN NAME OF CENTRATION.

WHY THE INFURATION?

LEADS TO DETERIORATION.

CONCENTRATE.

**BOSON**

WEAK.

BUT YOUR INTERACTION HAS ALWAYS IMPACTED ME.

FIRM NUCLEATION.

COUPLED.

QUARK-GLUON PLASMA.

QUANTA.

DEFY CENTRATION.

**QUARK**

FIELD LINES CROSS

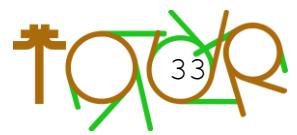
ONLY IF I DROP THE QUALITY OF MY DATA.

YOUR INHIBITION'S

ERROR.

THIS OLIGOMER'S

FLUID.



**BOSON**

DON'T CONCENTRATE NOW.  
YOU LEARN QUICK.  
THE MATTER BETWEEN US, THE ONLY THING YOU'LL EVER  
CROSS.  
*OLIGOMERS*, NO UNITS WILL EVER BE REPEATED.  
MASTER EQUATION.

*(RESEARCH ASSISTANTS head in various directions.)*

QUANTUM  
ARE AGGREGATION.  
OUTLIER!

*(Pointing to QUARK.)*

APPLY CENTRATION.

*(RESEARCH ASSISTANTS encircle QUARK.)*

CONCEN—

**BOSON** **RESEARCH ASSISTANTS**  
TRATE.

*(RESEARCH ASSISTANTS throw all the packets at QUARK, like a circular firing squad.)*

**RESEARCH ASSISTANTS**  
ALL THE FRAGMENTATION.  
NOT A GLOBAL FITTING.  
JUST SCALING EXPONENT.  
HAVE RESPECT FOR RATE LAWS.

*(QUARK kneels.)*

**RESEARCH ASSISTANTS** (cont.)

QUANTUM INDETERMINC-.  
PRIMORIDAL BEHAVIOURS.  
CONCENTRATE.

(*BOSON snatches the packet from QUARK.*)

CONCENTRATION.  
CAN YOU THINK RIGHT?

(*BOSON marks the packet.*)

CENTRATE.

(*BOSON hands the packet to QUARK.*)

CONCENTRATION.  
CAN YOU BELIEVE?

(*QUARK brokenheartedly reads the packet.*)

CENTRATE.

(*BOSON grabs a rolled-up diploma.*)

CONCENTRATION.  
CAN YOU FEEL IT?

(*BOSON remorsefully slaps QUARK with the diploma.*)

(*QUARK falls back, unconscious.*)

(*BOSON drops the diploma onto QUARK.*)

**RESEARCH ASSISTANTS** (cont.)

CENTRATE.

CONCENTRATION.

(*Removing the particle board and the desk.*)

CAN'T

CONCENTRATE.

CENTRATE.

(*BOSON and RESEARCH ASSISTANTS march off.*)

11. G

(*ATOM and PROFESSORS remain absent.*)

**ATOM**

**PROFESSORS**

STATICS CONSERVE JUST WELL-CONNECTED THEORETICAL PHYSICISTS.

(*Wandering in. They unroll the diploma. They pick up and read the packets. They discard the diploma.*)

**ATOM**

GRADES DO NOT FIT THE CURVATURE, QUARK.

**PROFESSOR**

I Q IS LEFT TO BE TRULY DESIRED.



**PROFESSOR**

SUCCESS IS THAT, NOT WITHIN YOUR VERY REACH.

**PROFESSOR**

B'S STAY IN TRASH BINS OF HISTORY.

**PROFESSOR**

LENS, THERE IS NONE THAT WE WILL EVER SEE THROUGH.

**ATOM**

WHAT THE F'S, DO ATTEMPT QUANTUM SUICIDE.

(*QUARK sits up.*)

**PROFESSOR**

GRAVITY.

**ATOM**

**PROFESSORs**

FORCE YOU'LL BRING IS G.

(*Leveling with QUARK.*)

GRAD PROGRAMS ARE EXCLUSIVE.

DON'T HAVE WHAT IT TAKES FOR A MASTER'S.

(*Gathering the packets.*)

(*LEPTON rushes in. She orbits ATOM.*)

**LEPTON**

БЛИН (blin).

I'M LATE, SORRY, PROFESS-...

(*Noticing QUARK.*)

**LEPTON** (cont.)

WHAT A STRANGE DAY TO SELECT DOCTORATE CANDIDATES.

(*Heading to QUARK.*)

CHARMING MATTERS WITHIN YOU.  
FAMILIARITY.

(*LEPTON recognizes QUARK.*)

YOU MADE ME MISS IT!  
YOU SAVED ME THE TROUBLE OF HAVING MISSED OUT ON AN  
ATOM SMASHING ACCIDENT.

(*PROFESSORS motions for LEPTON to not disclose that information.*)

**PROFESSORS**

AFFLICT.

**PROFESSOR**

FORCE CLASSIFIED, JEEZ.  
BRIGHT ADVISOR, LEPTON.  
FIND ONE UNBENT.  
NOT THIS DELINQUENT.

**LEPTON**

I KNOW G-FORCE BEING

**PROFESSORS**

YOU'LL KNOW G-FORCE.

**PROFESSOR**

A FORMER DOCTORAL  
CANDIDATE.

A BURDEN SO PECULIAR.  
WEAK.

**ATOM**

PUPIL BRINGS LONG  
DAYS, SHORT NIGHTS,  
ATOMIC WEEKS.



38

**LEPTON** (cont.)

PHYSICS, CLASSIC, QUANTUM,  
BASIC, NEVER SLEEP.

**PROFESSOR**

EQUATIONS, UNFIT SO  
YOU HAVE TO TWEAK.

(*LEPTON takes the packet from ATOM. She reads the packet.*)

**LEPTON**

AT THE VERY LEAST, SHE HAS PRINCIPLED HALF SPINS!

**ATOM**

SPIN IT.

**PROFESSORS**

FLUX, GIVEN NONE.

**PROFESSOR**

HER VARIABLE IS JUST A MASS.

**LEPTON**

CLASSIFICATION, YOU'VE PUT  
ALL US IN, NO MORE, NO  
LESS, INTEGERS, BUT SHE  
HAS ELECTRICITY.

**ATOM**

YOU KNOW THAT I KNOW  
THAT THERE'S LOTS TO  
SURPASS.

**PROFESSOR**

METHODS, NONE  
INTEGRAL ITS ANGLING  
FOR.

(*LEPTON returns the packet to ATOM.*)

**ATOM**

GRAVITY.

**LEPTON**

FELT I FORCE THESE G'S.

**PROFESSORS**

FORCE YOU'LL FEEL ARE  
G'S.

(LEPTON takes QUARK out for a spin.)

(QUARK flounders around.)

(ATOM and PROFESSORS humbly depart.)

**LEPTON**

YOU SURE NEED SOME ANGULAR MOMENTUM IN YOU.  
IDEALLY, COMMIT TO OCCUPY THIS STATE.  
MATTERS THAT ARE PARTICLES WITHIN YOU.

(QUARK seems hesitant.)

(ATOM and PROFESSORS remain absent.)

**ATOM**

**PROFESSORS**

OCCUPY STATE!

**LEPTON**

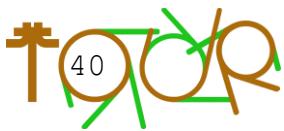
NAME?

(QUARK whispers into LEPTON's ear.)

QUARK?

SEEMS TO HAVE A LACK OF SPIN.  
FIRM.  
I AM IN ANY CIRCLES, ORBITALS.  
ДРУГ (drug).  
YOU'RE A FORCE TO BE WEIGHTED UPON THEE!  
STATE. HAVE TO SPIN TO!

(Spinning off.)



## 12. ANYON

### QUARK

DIMENSION.  
IT'S TWO.  
OPEN.  
ANYON.  
THIS DEGREE OF FREEDOM!  
NOW IS THE TIME FOR PHASE SHIFTS.

*(Twirling.)*

JOINT, THIS EXCHANGE HAS GIVEN ME.  
HOLD FERMIONS.  
PICK UP PHASES BY WAVE FUNCTIONS!

*[The space brightens.]*

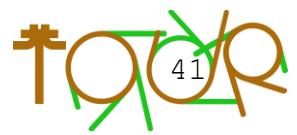
BOSON...

*(Slowing the spin.)*

A PART OF ME FEELS LIKE ZERO.  
THIS RELAXATION STATES: YOU ARE ALPHA. PI.  
INCOHERENT ELECTRON STATES: ANYONS, ANYONE? ABELIAN?  
DEGENERATE GROUND STATES: LEPTON.  
A NON-ABELIAN...  
I CAN'T TIE UP THIS QUANTUM KNOT.  
QUANTUM WEIGHT. ENVIRONMENT. OPERATIONS.  
NO NOISE. THERE ARE ONLY ENERGY GAPS.  
QUBITS. YOU ARE A QUANTUM COMPUTER.  
DON'T FLUXUATE. I CARE FOR ANYONS. TRY.

## 13. VALENCE

*(STUDENTS wander about.)*



**STUDENTs**

IT'S HIGHER ENERGY LEVEL.

THIS HIGHER EDUCATION HAUL.

IT'S HIGHER ENERGY LEVEL.

THIS HIGHER EDUCATION HAUL.

*(LEPTON trudges in, carrying an alarm and paperwork with scantrons.)*

**QUARK**

OSCILLATIONS DOC!

**STUDENTs**

IT'S HIGHER ENERGY LEVEL.

THIS HIGHER EDUCATION HAUL.

**QUARK**

ALTERNATING CURRENTS?

**STUDENTs**

IT'S HIGHER ENERGY LEVEL.

THIS HIGHER EDUCATION HAUL.

**QUARK**

SPECIAL STATES TODAY?

**STUDENTs**

IT'S HIGHER ENERGY LEVEL.

THIS HIGHER EDUCATION HAUL.

**QUARK**

ANY PHENOMENA?



**STUDENTs**

IT'S HIGHER ENERGY LEVEL.

THIS HIGHER EDUCATION HAUL.

**LEPTON**

ALARM, INFREQUEN-

*(Chuckling the alarm.)*

**STUDENTs**

THIS EMISSION LEADS TO GROUND STATE.

THAT ADMISSION LEAVES YA GROUNDED.

*(LEPTON hands a paper to QUARK.)*

**LEPTON**

SEE

**STUDENTs**

WHO IS THIS EDUCATED SPOIL?

WHAT A LOW ENERGY LEVEL.

**LEPTON**

TO INTEGRATION.

**STUDENTs**

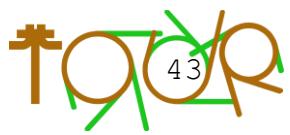
WHO IS THIS EDUCATED SPOIL?

WHAT A LOW ENERGY LEVEL.

*(LEPTON dumps the paperwork into QUARK's arms.)*

**LEPTON**

DERIVE ON.



### **STUDENTs**

WHO IS THIS EDUCATED  
SPOIL?

WHAT A LOW ENERGY  
LEVEL.

*(QUARK demonstrably questions the content of the paperwork.)*

### **LEPTON**

POSTULATE. A POS-  
THINK SPHERE.

### **STUDENTs**

WHO IS THIS EDUCATED  
SPOIL?

WHAT A LOW ENERGY  
LEVEL.

### **QUARK**

CHECK VALIDITY.

### **STUDENTs**

JUMP UP THOSE ENERGY  
LEVELS!

BUMP OUT SOME ENDLESS  
CREDENTIALS!

*(LEPTON eyes STUDENTs.)*

### **QUARK**

ASSUME MY MOTIVE.

FIRST ORDER NOTED.

### **STUDENTs**

MOTIVATION.  
MAKE ASSUMPTIONS.  
NATURAL EQUATIONS.  
DIRECT NOTATIONS.

*(QUARK disorderly eyes STUDENTs.)*



**QUARK** (cont.)

FRESH SCHOLARS UNVEILED.

SURVEILLANCE.

SERVE VALENCE.

**STUDENTs** (cont.)

FRESH GENERATIONS.

INFORMATION.

OBSERVATION.

SHELLED ELECTRONS!

**LEPTON**

TEACHING ASSISTANT.

**STUDENTs**

WE HAVE AN IMPORTANT QUESTION.

**LEPTON**

THESE STUDENTS

**STUDENTs**

WE HAVE AN IMPORTANT QUESTION.

**LEPTON**

SUCK ENERGY

**STUDENTs**

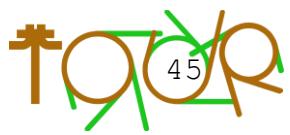
WE HAVE AN IMPORTANT QUESTION.

**LEPTON**

OUT OF YOU.

**STUDENTs**

WE HAVE AN IMPORTANT QUESTION.



**QUARK**

STATE, I'M FAMILIAR.

**STUDENTs**

THIS MIGHT BE A  
STUPID QUESTION.

(*QUARK coalesces STUDENTs.*)

**QUARK**

CONVECTION, IT'S CHILL.

**STUDENTs**

GEE PROFESSOR LEPTON.

QUARK. QUARK.

**QUARK**

OPTICAL, LOOKS GOOD.

**STUDENTs**

GEE PROFESSOR LEPTON.

QUARK. QUARK.

**QUARK**

BASICALLY, I'M HIP.

**STUDENTs**

GEE PROFESSOR LEPTON.

QUARK. QUARK.

**QUARK**

I'LL ADDRESS ALL QUESTIONS!

**STUDENTs**

GEE PROFESSOR LEPTON.

QUARK. QUARK.



**LEPTON**

SO FAILING. ASK IF

**STUDENTs**

THANK YOU, QUARK!  
THANK YOU, QUARK!

NO THANKS TO YOU,  
LEPTON.

**LEPTON**

QUESTIONS 'RISE BRIEFLY

**STUDENTs**

THANK YOU, QUARK!  
THANK YOU, QUARK!

NO THANKS TO YOU,  
LEPTON.

**LEPTON**

THEN YOU SNUB. NO

**STUDENTs**

THANK YOU, QUARK!  
THANK YOU, QUARK!

NO THANKS TO YOU,  
LEPTON.

**LEPTON**

NEED VALIDATION.

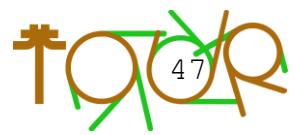
**STUDENTs**

THANK YOU, QUARK!  
THANK YOU, QUARK!

NO THANKS TO YOU,  
LEPTON.

*(Becoming rigid.)*

*(ATOM struts in.)*

**ATOM**

STEAL 'LECTRICITY. I'LL  
SURVEIL HERE. HIGHER  
LEVEL. HOW'S THAT GOING?

**STUDENTs**

EXACTLY WHAT IS SPIN?  
QUARK?

(*QUARK feels flabbergasted.*)

**QUARK**

SPIN IS AN ODD MAGNETIC PROPERTY ENCOMPASSING QUANTUM  
'LECTROMAGNETISM THEO— REALLY, WE SHOULD 'DRESS THE  
MATTER HERE.

**ATOM**

YOU CAN'T SPIN THIS.  
YOU CAN'T SPIN THIS.  
YOU CAN'T SPIN THIS.  
YOU CAN'T SPIN THIS.

**STUDENTs**

EXACTLY WHAT IS SPIN?  
T A?

(*STUDENTs wobble.*)

**QUARK**

I NEED TO EIGENSTATE UP-DOWN OBSERVABLE. YOU'RE  
ALWAYS IN MY SPACE?

(*Confronting ATOM.*)

**ATOM**

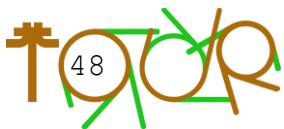
YOU CAN'T SPIN THIS.  
YOU CAN'T SPIN THIS.  
NEED TO MENTION.  
YOU CAN'T SPIN US.

**STUDENTs**

EXACTLY WHAT IS SPIN?  
TEACHER?

**QUARK**

SPACETIME FABRICATION BRINGS ABOUT LIMITATIONS, SO  
LET'S

**ATOM**

YOU CAN'T SPIN US.  
YOU CAN'T SPIN US.  
YOU CAN'T SPIN US.  
YOU CAN'T SPIN US.

**STUDENTs**

WHAT DO YOU HAVE IN  
CORE FOR US?

(*QUARK herds STUDENTs together.*)

**QUARK**

MOVE TO STATE FORMATION, MIXED VALENCE WITHIN  
FEMTOSECONDS, HEAR

**ATOM**

YOU CAN'T SPIN US.  
YOU CAN'T SPIN US.  
YOU CAN'T SPIN US.  
YOU CAN'T SPIN US.

**STUDENTs**

WHAT DO YOU HAVE IN  
ACCORDANCE?

**QUARK**

ALL THAT, QUASI-BORONS? AN EXAMINATION FILLED

**ATOM**

YOU CAN'T SPIN US.  
YOU CAN'T SPIN US.  
YOU CAN'T SPIN US.  
YOU CAN'T SPIN US.

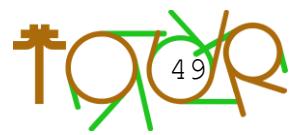
**STUDENTs**

WHAT DO YOU HAVE  
THAT'LL SHOCK OUR  
CORE?

(*QUARK hands out the scantrons to STUDENTs.*)

**QUARK**

WITH HOLES IN SCANTRONS.

**ATOM**

YOU CAN'T SPIN US.  
YOU CAN'T SPIN US.  
IN THEORY THOUGH,  
PLEASE SHARE WITH US.

**STUDENTs**

WHAT DO YOU EXPECT  
FROM NUCLEI?

*(ATOM orbits QUARK.)*

**QUARK**

THINK OF INSIDE-OUTSIDE YOUR MATTERS, YOU'LL FIGURE  
OUT YOUR CHARGE AND YOUR CONFIGURATION. THERE'S  
SOMETHING TO BEING NOBLE, GUESS.

**ATOM**

PLEASE SHARE WITH US.  
PLEASE SHARE WITH US.  
PLEASE SHARE WITH US.  
PLEASE SHARE WITH US.

**STUDENTs**

WILL THIS MOMENTUM BE.  
CURVED?  
FAILURE?

**QUARK**

I'LL STOP WITH SURVEILLANCE WHEN THIS BASIC UNIT JUST  
QUIT TAKING ENERGY!

*(Grabbing ahold of ATOM.)*

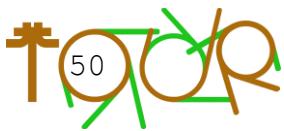
**ATOM**

PLEASE SHARE WITH US.  
PLEASE SHARE WITH US.  
PLEASE SHARE WITH US.  
I SERVE VALENCE.

**STUDENTs**

WILL THIS MOMENTUM BE  
CURVED?  
VALENCE?

*(ATOM snatches the paperwork from QUARK.  
They push off of her.)*



50

**ATOM** (cont.)

ENERGIES FOR  
THE VALENCE!

**STUDENTs** (cont.)

CONTRIBUTION.  
CONTRIBUTION.

IF YOU  
ARE HIGHER  
LEVEL  
THOUGH FAILURE,  
THEY CAN TOO!

CONTRIBUTION.  
CONTRIBUTION.  
CONTRIBUTION.  
CONTRIBUTION.  
CONTRIBUTION.  
CONTRIBUTION.

(*LEPTON holds back QUARK.*)

**LEPTON**

THEY'LL GET ELECTRONS.

(*STUDENTs pass around scantrons.*)

**STUDENTs**

DISTRIBUTION OF THE SCANTRONS.

**LEPTON**

THEY'LL GROUP THE ELEMENTS.

(*STUDENTs group together.*)

**STUDENTs**

NODES, ORBITALS.  
NODES, ORBITALS.

NEUTRAL CIRCLES.  
NEUTRAL CIRCLES.

**LEPTON**

THEY'LL CONFIGURATE.

(*STUDENTS form circles.*)

### **STUDENTS**

NODES, ORBITALS.  
NODES, ORBITALS.

NEUTRAL CIRCLES.  
NEUTRAL CIRCLES.

### **LEPTON**

THEY'LL COME OUT THEIR SHELLS.

(*STUDENTS move from one circle to another.*)

### **STUDENTS**

NODES, ORBITALS.  
NODES, ORBITALS.

NEUTRAL CIRCLES.  
NEUTRAL CIRCLES.

### **LEPTON**

THEY'LL FIND OUT THEY'RE VALIANT.

(*STUDENTS orbit either LEPTON and QUARK,  
and/or ATOM.*)

### **STUDENTS**

NODES, ORBITALS.  
NODES, ORBITALS.

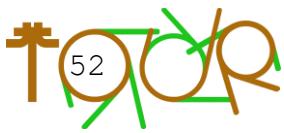
NEUTRAL CIRCLES.  
NEUTRAL CIRCLES.

### **LEPTON**

QUARK,  
ASSISTANT,  
YOU'LL NOT  
FAIL.  
QUARK,  
ASSURANCE,  
YOU NEED  
NO VAL-

### **STUDENTS**

MOTIVATION.  
MAKE ASSUMPTIONS.  
NATURAL EQUATIONS.  
DIRECT NOTATIONS.  
GENERATIONS.  
INFORMATION.  
OBSERVATION.  
SHELLED ELECTRONS!



(*QUARK openly dismisses LEPTON.*)

(*LEPTON motions STUDENTS to turn in their papers to QUARK.*)

**LEPTON**

DON'T TAKE IT.

**STUDENTS**

VALENCE ELECTRONS.

VALIDATION.

(*Handing the papers to QUARK.*)

(*QUARK snubs STUDENTS.*)

**STUDENTS**

VALENCE ELECTRONS.

VALIDATION.

**LEPTON**

WRONG ENERGY LEVEL.

(*Gathering all the papers from STUDENTS.*)

**STUDENTS**

VALENCE ELECTRONS.

VALIDATION.

VALENCE ELECTRONS.

VALIDATION.

**LEPTON**

VALIDITY.

**STUDENTS**

VALENCE ELECTRONS.

VALIDATION.

**LEPTON**

THERE'S

**STUDENTs**

VALENCE ELECTRONS.

VALIDATION.

**LEPTON**

NO NEED SEARCHING

**STUDENTs**

VALENCE ELECTRONS.

VALIDATION.

VALENCE ELECTRONS.

VALIDATION.

**LEPTON**

VALIDITY.

**STUDENTs**

VALENCE ELECTRONS.

VALIDATION.

**LEPTON**

THE HEART

**STUDENTs**

VALENCE ELECTRONS.

VALIDATION.

**LEPTON**

OF PHYSICS



**STUDENTs**

VALENCE ELECTRONS.

VALIDATION.

**LEPTON**

PUMPS

**STUDENTs**

VALENCE ELECTRONS.

VALIDATION.

**LEPTON**

VALIDITY.

**STUDENTs**

VALENCE ELECTRONS.

VALIDATION.

**LEPTON**

NEED

**STUDENTs**

VALENCE ELECTRONS.

VALIDATION.

**LEPTON**

NO VALIDATION.

*(Dumping the paperwork into QUARK's arms.)*

**STUDENTs**

VALENCE ELECTRONS.

VALIDATION.

VALENCE ELECTRONS.

VALIDATION.

JUMP !

BUMP !

(LEPTON departs.)

(STUDENTS orbit away.)

#### 14. EFFUSION

(QUARK kneels. She spreads the papers out onto the floor.)

**QUARK**

EFFUSION.  
'BOUT TO BLOW A FUSE.  
LOSING FEELINGS.  
MENTAL DIFFUSION.  
I AM SO EFFUSION.  
ACTUALLY, EFFUSION.

(Slapping the papers.)

DON'T BE CONDENSED.  
LET OFF SOME STEAM.  
GASES MOVE FAST.  
INCREASE HEART RATE.  
FIND WHAT'S GIVEN.  
HOLE IN THE WALL.  
LESS MOLAR MASS.  
ESCAPE THIS BOX.

(Refocusing on the papers. She gathers the papers.)

EFFUSION.  
WAS I A BORON?  
GOT TO HAND  
ELECTRONS, JUST TO BE  
LENIENT. EFFUSION.  
HOW ABOUT? EFFUSION.

(Tossing out the papers.)

EFFUSION.  
GIVE NO EFFUSIONS.  
NONE EFFUSION.

**QUARK** (cont.)

JUST GO EFFUSION.  
I SWEAR TO EFFUSION.  
YOU ALL CAN EFFUSION IT!

*(Preparing for a journey.)*

15. SUPER COLLIDE

SCENE ii

*[Desertron]*

(LEPTON elegantly arrives, clad in a rancher's uniform.)

**LEPTON**

HOWDY. JOIN IN THE  
CIRCUIT!

*(Pointing in the distance.)*

HOME TO DESERTRON.  
HOPE, THESE RAYS  
HOLD IN. BEAMS AS FAR  
AS THE EYES CAN SEE  
ANY BEINGS TO  
EVER TOP YOUR DISSERTATION.

**QUARK**

NO LABS THERE YET. WHAT KIND OF ADVISING YOU DO TO  
LEAD US HERE?  
MY NATURAL PHYSICS HAS BEEN TRAINED TO GET YOU COFFEE.

*(LEPTON wanders off.)*

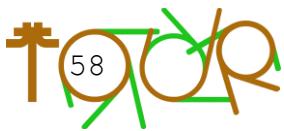
END UP WITH DESERTS.

*(Noticing LEPTON's disappearance.)*

NOT THE COURSE TO DESERT THIS DOCTORATE!

*(Motioning towards herself.)*

WELL, THERE IT GOES. MY CONCLUSION.  
EGO'S NEVER HYPERSENSITIVE. THIS MIND STAYS DEHYDRATED.



(LEPTON tiptoes in, sanding off an operator's control.)

**LEPTON**

HYPOTHESIS THAT THIS  
HEARTLAND OF  
INNOVATION BRINGS FREE  
ENERGY. WHERE NOT JUST  
MATTER EXISTS, BUT THEY  
MATTER IN OUR LAWS.  
IN FACT, FORCE THESE  
WAVELENGTHFUL KEYS.

(Handing the control to QUARK.)

PROPEL PROTONS, SMASHING THEM INTO A GRAPHITE'S NUCLEI,  
PRODUCING NEUTRONS WITH PIONS, POSITIVE NEGATIVE,  
TAKING THOSE POSITIVITIES, FOCUSED IN A BEAM SO THEY'D.  
PARDON MY, DECAY.  
JUST THEORIZ...  
SUPER COLLIDE.

(QUARK presses on the control.)

BEAMS SUPER COLLIDE!

(Preparing for the collision. When nothing happens, she takes over the control.)

БЛЯДЬ (blyat).  
GIVE ME A MOMENT.  
HOLD UP UNIVERSE!

(Trying to raise QUARK.)

QUARK.

[Particles collide.]

BEHOLD THE DESERTRON!  
SUPERCONDUCTING SUPER COLLIDER!  
A SMASH.

[*Particles move along and around.*]

**QUARK**

STRANGE.  
FERMIOS.  
MUONS.  
'TRINOS.  
GLUONS.  
CHARM.

**QUARK**

QUANTA.

**TECHNICIANs**

RAYs!

**QUARK**

(*Feeling matters.*)

ENERGY BUNDLES.

**QUARK**

STANDARD

**TECHNICIANs**

FORCE!

**QUARK**

MODEL.

(*Growing antsy.*)

THEORIZED

**QUARK**

'NOUGH.

**TECHNICIANs**

NOWT.

(*QUARK deactivates the control.*)



(*TECHNICIANS collide with one another.*)

**TECHNICIANS**

QUARK! JUST GOT YOURSELF ROLLING!  
SPIN PARTICLES AT HOME. GET PARTICLES IN TUBE.  
PASS BY NICE PROTONS. SAY HI TO 'LECTRONS.  
STEER MAGNETIC FIELDS. FEEL THE ENERGY.  
REACH THE SPEED OF LIGHT. LIGHTEN UP, WILL YA?

**LEPTON**

COL-

(*TECHNICIANS collide and gather.*)

**TECHNICIANS**

'LIDE!  
SCIENTISTS, BUILDERS, PLAYERS, FRIENDS, AND  
FAMILY ALL  
GATHER HERE THERE AROUND HUMAN'S GREATEST  
FEAT  
UNDER. EVER.

**LEPTON**

BUILD  
THE MACHINE THAT PURSUES ALL OF OUR DAYDREAMS.  
FULFILL UNSEEN WONDERS WITH PROTON BEAMS.  
DARK FIELD.

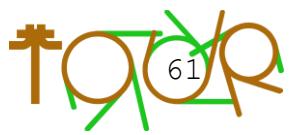
(*Interacting and colliding.*)

**TECHNICIANS**

LUXURY SCIENCE IN A DESERT!

(*Interacting and colliding.*)

(*QUARK rein in the particles.*)



**LEPTON**

AT DESERTRON.

**TECHNICIANS**

ENERGY, CAN YOU FEEL  
IT, GAIN THE MAGNET!

**QUARK**

SUPERNATURAL.

REACH THE SPEED OF

**LEPTON**

CONDUCT YOURSELF.

LIGHT!

**QUARK**

SUPERVISION.

ANTI-QUARK MATTERS

**LEPTON**

COLLIDE OTHERS.

SUPER COL-

*(Setting QUARK on a collision course.)*

'LIDE!

HER WAY OUT BARYONS! SUPER COLLIDE BEYOND!

SUPERCONDUCTIVITY MEDIUM

MODELLED!

SMASH THE PARTICLES TOGETHER FOR ENTIRE WORLD  
RECORD AROUND FORTY TERA 'LECTRON  
VOLTS!

*(Gathering around the control.)*

GOD PARTICLE BURIED RIGHT UNDER THE DESERTRON.

*(Expanding.)*

QUADRUPOLE LIGHTEN UP THE MOMENT. SUPER  
COLLIDER!

**15a. SUPER COLLIDE (reprise)**

*(TECHNICIANS exit.)*



## LEPTON

QUARK.

SUPER

CONDUCT YOURSELF, CANDIDATE.

JOB

INTERVIEW, I'VE GOT TO GO. IT'S MY COLLISION COURSE.

(Departing.)

## 16. PARTICULATE

(*QUARK redirects her attention to the control. She gradually toys around with it.*)

[Shades of atoms loom.]

(*ATOM frantically rushes in.*)

## ATOM

AM I TOO LATE?

(*Noticing QUARK.*)

AGAIN, QUARK.

A POSTULATE DREAMER.

ALWAYS IN THE CLOUDS.

PARTICULARLY EERIE MATTER.

NO OPERATIONS REAL SOON.

THEY'RE ALLOCATING FUNDS.

LIQUIDATED SCIENCE.

PARTLY DUE TO THIS WARY SOCIETY.

(*Hesitantly accepting QUARK.*)

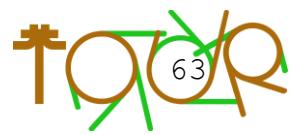
TO ABDICATE, WE MUST NOT.

SATURATE DESERTRON.

I SHALL POSTULATE.

PARTICULARLY AIRY QUARKY.

(*QUARK DJs the control.*)



[*Particles may collide.*]

## **ATOM** (cont.)

QUIRKY.

(*Readjusting himself.*)

ARTICULATE THIS BAD NEWS.  
LET'S CONCENTRATE SOLIDS.  
LET US SAVE THIS LAB.  
PARTICLES TO PARTICLES, JUST BREATHE.

(*TECHNICIANS fill the space.*)

ARTICULATE PARTICULATE. ARTICULATE PARTICULATE.  
ARTICULATE PARTICULATE. ARTICULATE PARTICULATE.  
ARTICULATE PARTICULATE. ARTICULATE PARTICULATE.  
ARTICULATE PARTICULATE. ARTISTICALLY PARTICULAR.

(*QUARK parties on. She feels admiration.*)

ARTICULATE PARTICULATE. ARTICULATE PARTICULATE.  
ARTICULATE PARTICULATE. ARTICULATE PARTICULATE.  
ARTICULATE PARTICULATE. ARTICULATE PARTICULATE.  
ARTICULATE PARTICULATE. ARTFULLY PARTICULARLY LATE.

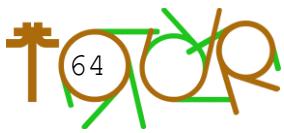
## 17. SLEPTON

(*ATOM rushes towards QUARK, protesting.*)

### **ATOM**

SCIENCE ENDING.  
THEY'RE SHUTTING THE DESERTRON DOWN!

(*TECHNICIANS fearfully run away.*)



## **QUARK**

QUIT LYING.  
WHAT'S THE MATTER?

## **ATOM**

INFER, ATOM.

*(Motioning towards himself.)*

I FIGURED EVERYTHING MATTERS!

## **QUARK**

ATOM SHOULD STOP MAKING THINGS UP.  
WHEN THINGS SEEM TOO GOOD TO BE TRUE.  
JUST SLEEP ON IT, REST.  
WAKE UP, FIND MATTERS BEYOND DREAMS!

## **BOSON**

OSCILLATIONS.

*(QUARK feels the nightmares.)*

*(BOSON brightly returns.)*

*(ATOM joyfully tears up.)*

NON-PHYSICIST HAS DRAWN  
HERSELF TO DESERTRON.

*(Embracing ATOM.)*

DEAR ATOM, HERE'S BOSON.  
ACCELERATOR, I RUN.

*(Releasing ATOM. He views the control.)*

THERE'S TIME THAT YET NEEDS CRUNCH.

(*QUARK guards the control.*)

**BOSON** (cont.)

THIS HERE'S PARTICLE'S DAWN.  
DUSK WILL APPROACH WITH FUNDS.

(*ATOM hands cash to BOSON.*)

STILL HAVE ALL THE SPUN, SQUARK.

(*QUARK attempts to get ATOM to retrieve their cash. She reaches for the cash herself.*)

(*BOSON tosses the cash into the open.*)

(*POLITICIANS rabidly bound for the cash. They notice BOSON. They quickly adjust themselves. They dismiss the cash.*)

**POLITICIANS**

SCIENCE NEEDS FUNDING?  
SCIENCE NEEDS FUNDING!

**BOSON**

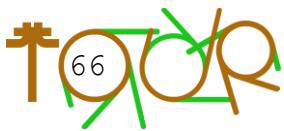
DESERTRON COSTS A SLEPTON.

(*Kicking the cash to POLITICIANS.*)

**POLITICIANS**

SLEPTON?

(*Picking up the cash.*)



**BOSON**

DESERT...

*(Directing out.)*

**BOSON**

LOST ITS RUN.

**POLITICIANS**

WE WILL SLEEP ON THIS!

**BOSON**

TO SPUN ON NO AXIS.  
NICE RUN, MARATHON, LASTED.  
YOU'RE DONE, ALL THAT MATTERS.  
REAL FUN, IT WAS.

**POLITICIANS**

A SLEPTON!

**BOSON**

NO ACTIONS REQUIRED.  
PASSION, BIT QUANTUM, FULFILLED.  
OUR TAXES, DO BLOW IT.  
THEIR FUNDS, GO SLOW.

**POLITICIANS**

A SLEPTON!

*(Counting the cash.)*

THESE PARTICLES.  
THEY'RE PARTLY CHORES.  
DON'T MAKE WARS AS ATOMIC.  
I NEED GAS AS AN ADDICT.  
THERE'S NEW SCIENCE TO ENRICH.  
I'M PRINCIPLED.  
THEREFORE, NO MORE POEMS.  
THESE KNOWLEDGE YOU SHOULD DITCH.

**POLITICIANS** (cont.)

I WILL OUTCLASS, NOWT TO COMMIT.  
ART, ALSO MAKES THE WORLD

**QUARK**

THERE'LL BE PEACE.  
RENEWABLES.  
SOME POETRY.  
THERE IS ART  
IN PARTICLES!

**POLITICIANS**

SICK!

(*TECHNICIANS rush in to collide with one another.*)

(*POLITICIANS shove TECHNICIANS out of the space.*)

**BOSON**

ALREADY HAVE IT ALL AT THE ACCELERATOR.

**QUARK**

MORE.

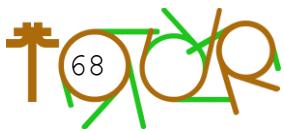
(*Directing out.*)

**POLITICIANS**

OPEN...

**BOSON**

DESERTRON'S CONDUCT SHOULD HAVE LEFT YOU SUPER FLOORED.



**QUARK**

EXPLORED PARTICLES!

**POLITICIANS**

DOORS.

**BOSON**

FOR YOU, THERE'LL BE NOTHING IN STORES.  
ONLY TO LEAVE YOU IN THE DARK, ENLIGHTEN YOUR ACCORD.

**QUARK**

THEY'LL SEE DEATH.  
RECRUITING.  
IT'S SO LOW.  
I AM QUARK  
IN PART CAUSE!

**POLITICIANS**

ATOMIC MATTERS!

(ATOM *stirs.*)

**BOSON**

I'M BOSON, I LIGHT UP THE PHYSICS WORLD!

**POLITICIANS**

ATOM...

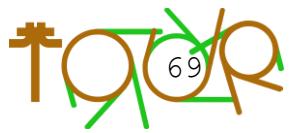
(BOSON *addresses ATOM.*)

**BOSON**

LISTEN HERE BUM,  
THERE IS NOTHING TO GLUON.

**POLITICIANS**

SPLIT.



## BOSON

HEART TO HEART, NUCLEI NUCLEI. YOU'LL FEEL RENEWED.

(ATOM *rhythmically claps.*)

## POLITICIANS

(*Rhythmically slapping cash against their hands.*)

YOUR PARTING CALL.  
A MATTER SOUGHT.  
THE WORLD WILL REMEMBER IT.  
TO RID OF THOSE WHO ARE SICK.  
POSITIVES FINALLY FIT.  
GIVE UP, ACCELERATOR.

(ATOM *riles up.*)

PARTICLES FOR ALL.  
TO EXPLODE IS YOUR PICK.  
CLIMATE IMPLODES, IS ALL OPTICS.  
CASH, REALLY MADE THE TIMES

## QUARK

ATOMIC.  
CREATION.  
BIRTHS NEW LIFE.  
DON'T SELL OUT TO  
DESTRUCTION!

## POLITICIANS

TICKED!

## BOSON

YOU HAVE THE POTENTIAL, JUST NEED A LITTLE FORCE.

(*Presenting nominal cash.*)



**QUARK**

DROP...

**POLITICIANS**

FUNCTION...

**QUARK**

KINETIC.

*(Removing the cash from BOSON.)*

**BOSON**

TAKE A POSITION, THIS IS YOUR MOMENTUM.

**POLITICIANS**

RAN.

**QUARK**

ALL LAGRANGIAN.

**BOSON**

LET THE ENERGIES BE HAMILTONIAN.

**POLITICIANS**

SUM.

*(Raining down the entire cash on ATOM.)*

**ATOM**

NUCLEAR NOW!

(ATOM tears apart the control.)

*(QUARK helplessly watches.)*

BOSON

THE BOMB, YOU REALLY ARE.  
NO FLAWS, IT IS IN NUCLEAR.  
IN AWE OF REVENUE.  
THE PALM OF YOURS.

## POLITICIANS

SLAP ON IT!

BOSON

THESE FEES KEEP PILING ON.  
LIFE TEEMS CONCLUSIVE RESULTS.  
YOUR DREAMS ARE ATOMIC.

*(Pinching his thumb and index finger.)*

ENERGIES, RUN FREE.

## POLITICIANS

SLEEP IT OFF!  
SCIENCE DON'T NEED FUNDS!

(*QUARK weeps.*)

## POLITICIANS

CRY AWAY.  
PHYSICS GONE!



**BOSON**

DO SLEPTON IT.  
SUPER COL- WHAT, SQUARK.

**POLITICIANS**

GO AWAY... GO DECAY...

**BOSON**

SUPER COL-  
SUPER COL-  
SUPER DEFUNDED, DESERT IT!  
SLEEP ON IT.  
SLEEP ON IT.  
SLEPTON.

**POLITICIANS**

DESERTRON'S DONE! SUPER GOODBYE!

(*BOSON, ATOM, and POLITICIANS huddle around in the nuclear winter.*)

**17a. SLEPTON (reprise)**

(*ATOM and POLITCIANS depart.*)

**BOSON**

A SHAME YOU CAN'T MEET.  
HER GAME, PARTICLES, NEW HIRE.

(*QUARK recognizes the persona of LEPTON.*)

(*BOSON reminisces.*)

**BOSON** (cont.)

GOURMETS, DESERTRON.

(*Pushing away QUARK.*)

NOW STRAY, SLEPT ON.

(*Vacating.*)

(*QUARK reclusively perches.*)

### 18. BACKSCATTER

(*LEPTON eagerly skips in.*)

**LEPTON**

I'M BACK WITH A TORSION. IT'LL SHATTER  
EXPECTATIONS. I'M POSITIONED  
VECTOR OF THE ACCELERATOR!

(*QUARK remains silent.*)

I SUPERVISE PARTICLES!

**QUARK**

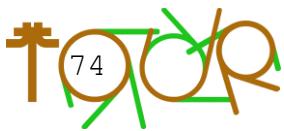
SHUT UP WITH YOUR PARTICLES.  
I DO NOT KNOW THESE BACK-  
STABBING MATTERS. I DON'T BELIEVE  
IN ANY OF YOUR WORK.

**QUARK**

BACKSCATTER!

**LEPTON**

SO UPFRONT.



(LEPTON looks around the void.)

**LEPTON**

YOU'RE TRULY NOT ENVIOUS FOR ME TO BE MAKING WAVES.  
DON'T MAKE OUR COUPLED ACADEMIC BOND INELASTIC.  
THERE'RE PLENTY OF PHOTONS ALIGNED BEYOND THIS  
GEGENSCHEIN.

(QUARK slightly shudders.)

WHY NOT REFLECT WITH ME, COMRADE?  
WORLD MAY LACK THE IONS OF FUTURE.  
LET'S FORWARD SPECULAR FAR PASSED.  
NO MORE FOR ME. FOR ONCE, WORK WITH ME.  
IT'S PRESENT, ACCELERATOR.  
I'M AWARE PARTICLES ARE NOT THE RIGHT FIT PHYSIC-LY.  
BUT I REMEMBER HOW MAGNETS ALWAYS GAVE YOU MOMENTS.  
EXCITATION CIRCUITS AS MAGNETIC FLOWS ALL CORNERS.  
TAKE THE ACCELERATED TOUR!

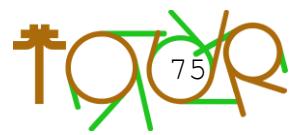
(Orbiting QUARK.)

(QUARK pushes away LEPTON.)

MY LOVE FOR PARTICLES MADE YOU REPELLED.  
FIND HOME IN SOME MAGNET FACTORY.  
AS ADVISOR, I SHALL BACKSCATTER.  
SEND MY SIGNALS, TO BE FREE.

**QUARK**

A WEAK LOCALIZATION.  
FIBER WENT BAD OPTICS.  
LEAVE ME MORE LESS ISOTROPIC  
IN RANDOM DIRECTIONS.



**QUARK**

BACKSCATTERED!

**LEPTON**

GOT YOUR BACK.

(*LEPTON leaves.*)

**QUARK**

HEART SHATTERED.

(*Perching.*)

### 19. CHARGE

(*ATOM anxiously enters.*)

(*LEPTON swiftly returns.*)

**LEPTON**

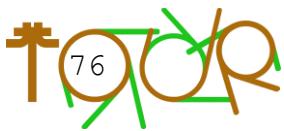
THIS CHARGE.

(*Pacing in a circle.*)

THESE ARE MY FIELDS.  
I ELECTRIFY THE PLACE.  
PARTICLES LISTEN.  
NO MATTERS HESITATE.  
AND THE WHOLE WORLD YIELDS.  
THEY LET ME INTO THE SPACE.  
SO WHAT TO DO THEN  
AS I'M DISENGAGED.  
ALL I DID WAS NEGATE.  
LEPTON, ELECTRONS...

(*Getting closer to ATOM.*)

(*ATOM demonstrates a headache. They distance away from LEPTON.*)



76

**LEPTON** (cont.)

DERIVE  
REPULSIVE EQUATIONS.  
PART OF ME  
ADDS JUST THIS FACTOR:  
NEGATIVE.  
MY CHARGE.

*(ATOM perches with QUARK.)*

MY CHARGE.

*(Stopping in her tracks.)*

THOUGHT INDIVISIBLE.  
ALL POWERS INTERWOVEN.  
THEN LIKE A GENIUS  
IN A CATHODE RAY TUBE.

*[Lights scatter about.]*

TO STAY INVISIBLE.  
INSTEAD LET FEELINGS APPREHEND.  
I LET MY LIFE SPARK  
AND BRING ENERGY BUT  
MY NATURES NOT TO SOOTHE.

*(QUARK finally acknowledges ATOM's presence.)*

I ADD NEGATIVE.  
BUT IT'S HIDDEN IN  
ELECTRICITY.  
WHAT MUST I TAKE IN?

*(ATOM extends their arm to QUARK.)*

**LEPTON** (cont.)

ALL I BRING IS  
NEGATIVITY.  
I AM CHARGED.

(*Standing.*)

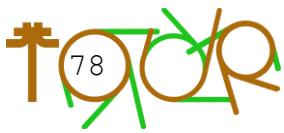
TAU.  
I AM THE ONE WHO MAKES IT IN.  
THE ONE WHO ALWAYS  
LED THE CHARGE.  
I SHOULD NOT HAVE LEFT  
WHAT WAS GOLDEN.  
I STAYED INVISIBLE.  
ELECTRIC FIELDS WOKE.  
JUMPED TO THE HIGHEST POINTS  
ON ALL ENERGY LEVELS.  
NATURAL CLIMBER.  
I FELT PROTONS AND NEUTRONS.  
GAVE EVERY VALENCE.  
GIVE ATOM THE VALIDATION.

(*QUARK slaps away ATOM's hand.*)

YET I HAVE GOT NO STRONGER  
INTERACTIONS.  
WITH MY CHARGES IN  
THE NEGATIVES.  
FROM ME TO THE FORCES OF NATURE,  
WONDERS, WHY LEPTON,  
BE NEGATIVE?

(*Moving with the light.*)

ALIGN YOURSELF.  
DISTANCE FROM THE MATTERS.  
PARTICLE'S TAU.  
PARTICLE'S MU.  
USE STANDARD MODELS,  
LIGHT BOSON,  
ALL THE QUARK.  
ORBIT, LEAVE FIELD.



(LEPTON distances from QUARK and ATOM.)

**LEPTON** (cont.)

THEN PREON THE POINT,  
DERMO (der'mo).  
WHAT DOES QUARK EVEN BELIEVE?  
CAN I RETURN TO HER WITH...  
DOES SHE DESERVE  
HER DOCTORATE?  
LEPTON,  
YOUR CHARGE.

(Vanishing.)

## 20. ELECTROFORM

SCENE iii

*[Magnet Factory]*

*(TECHNICIANS march in, carrying a desk, particle board and supplying metals. They set down the desk.)*

*[The particle board displays an orderly pattern of tacks.]*

**TECHNICIANS**

ELECTROFORMATIONS MAGNETIC PERSONNELS.

*(Noticing QUARK.)*

ELECTROFORMIDABLE MADE-UP CONNECTIONS.

*(Encircling QUARK.)*

ELECTROFORMULIZE ORBITALS TO BRING ABOUT CONCLUSIONS.

*(Pointing their metals towards QUARK.)*

*(ATOM breaks the circle)*

**ATOM**

ELECTROFORM.

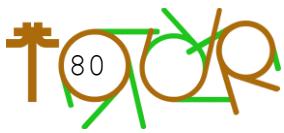
ELECTROFORM.

ELECT ME FORMALLY FOR I AM YOUR ALLY.

IT IS REFORMATION FOR MATTERS WITHIN US.

*(Leveling with QUARK.)*

ATOM SHALL FORMULATE AN EXPERIMENT TO FIELD PROPOSALS.



**TECHNICIANS**

TEST THE WATER.  
THIS DISTILLATION.  
ELECTROFORM.  
JOIN THIS CIRCUIT.  
MAGNET FACTORY.  
ELECTRO— REBORN.

*(Hypnotically moving around QUARK.)*

**ATOM**

I KNOW WHAT YOU'RE  
THINKING IN MAGNETIC  
MOMENTS.  
HOW DID I GET  
THIS HIGH ENERGY  
POSITION?  
BOSON GRANTS ME  
AN OPENING INTO THE  
ACCELERATOR.

**TECHNICIANS**

ELEMENTARY.  
BY YOUR UNIT.  
WHAT'S UP, ATOM?  
GONE DOWN, ATOM?  
CHARMING QUESTION.  
A STRANGE ANSWER.  
ON TOP OF THINGS.  
DON'T BOTTOM OUT.

*(QUARK nears the desk.)*

**TECHNICIANS**

ATOM HAS FORMED THIS PACT FOR ALL US LITTLE GUYS.  
ATOM WAS FORMERLY CONSIDERING BOSON.  
ATOM CHOSE FORMALISTS AND PERSISTS LEADING MAGNET  
FACTORY.

*(Building magnets.)*

**QUARK**

ELECTROLYTES.  
ELECTRO-TRAP.

*(Steering away from the desk.)*

## 23. MOLE

[Accelerator]

(*QUARK wanders in. She pops around.*)

(*BOSON enters. He moves along, without noticing QUARK.*)

(*LEPTON rushes in, carrying papers. She playfully smacks QUARK with the papers. She rushes out.*)

(*TECHNICIANS remain absent.*)

### **TECHNICIANS**

WE HAVE MOLES.

CIRCLE YET TO BE A SPHERE.

LET'S CONTINUE THE TOUR.

(*ATOM tardily arrives. They eye QUARK.*)

(*QUARK wins the staredown with ATOM.*)

## 24. ELEMENTARY PARTICLE

(*ATOM progressively smiles.*)

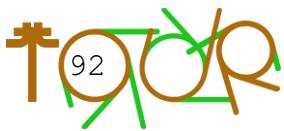
### **ATOM**

STARTING OFF ELEMENTARY.

ORBITALS, YOU FIT IN SO MANY.

LET US ACCELERATE!

JOIN US ON THIS CIRCUIT TOUR.



(*QUARK remains unmoved.*)

(*ATOM puzzledly stops in their tracks.*)

**QUARK**

A LITTLE LATE.  
ATOM.  
YOU VERY LIKELY HAVE NO CONCEPT.  
SPACETIME.  
YOU HAVE NO IDEA. OUR CONNECTION,  
ATOM.  
THERE'S NOTHING AT ALL TO QUANTIZE, ATOM.  
IT'S BEEN A WHILE.  
ATOM.  
YOU NO LONGER HOLD ANY COMTEMPT?  
REMORSE?  
YOU HAVE AN IDEA, MISDIRECTIONS,  
ATOM,  
THAT I HAD TO GO THROUGH ALONE, ATOM?

**ATOM**

QUARK.  
YOU DID NOT HIT ROCK BOTTOM.  
YOU'VE BEEN ON TOP OF YOUR GAME.  
YOU'RE CHARMING.  
CAN'T UNDERCUT STRANGENESS.  
YOU SHOULD REMAIN UPPITY.  
YOU'RE HOME, NOT DOWN IN THE DUMPS.  
STAY CHARMING,  
AND ALWAYS BE STRANGE.

(*QUARK sees through ATOM.*)

**QUARK**

SO GLAD WE CROSSED  
EACH OTHER.  
A SMALLER WORLD AND I'D BE UP IN  
YOUR CLOUD

**QUARK** (cont.)

OF NEGATIVITY, 'LECTRIC LIKE,  
IT HERE?  
POLARITY BEYOND YOUR MAGNET FACTORY.

(ATOM *is taken aback.*)

**QUARK**

I'LL HIT ATOMIC  
BOTTOMS.  
I'M GAME TO TOP IT ALL  
OFF.  
STOP FLATTERING.  
I CAN LIVE WITH ALL  
THAT.  
I'M DONE WITH YOUR  
UPWARD TREND.  
SO DONE, GET DOWN TO  
MY LEV—

**ATOM**

YOU DID NOT HIT ROCK  
BOTTOM.  
YOU'VE BEEN ON TOP OF  
YOUR GAME.  
YOU'RE CHARMING.  
CAN'T UNDERCUT  
STRANGENESS.  
YOU SHOULD REMAIN  
UPPITY.  
YOU'RE HOME, NOT DOWN  
IN THE DUMPS.

(ATOM *kneels.*)

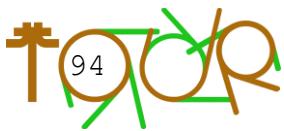
THIS IS STRANGE,  
AND NEVER CHARMING.

STAY CHARMING.  
AND ALWAYS BE STRANGE.

(ATOM *stands up.*)

**QUARK**

NOT SYNCHROTRONS.  
CIRCLE.  
ACCELERATOR. A WINDING LOOP.  
IT'S STRANGE.  
GODLY PARTICLES, WORLD'S RUN BY ONE.  
BOSON  
AND HIS GADGETS: ALL THESE ATOM SMASHERS.



(ATOM distances.)

**QUARK** (cont.)

I'M JUST BEING  
RANDOM.  
IT'S REALLY HARD TO NOT INFLUENCE  
YOUR FIELD.  
I'M FUNDAMENTAL.

*(Twirling her finger around her head.)*

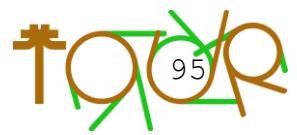
I COME AROUND,  
ATOM,  
TO ACCELERATE, SCATTER TOURS.  
NOWHERE BUT UP.  
BOTTOM.  
TOP.  
DOWN.  
STRANGE.  
CHARM.  
STANDARD MODEL.  
IT'S UP.  
BOTTOM.  
TOP.  
DOWN.  
STRANGE.  
CHARM.

*(LEPTON enters. She happily addresses ATOM.)*

THE STANDARD MODEL.

*(ATOM pushes LEPTON into QUARK.)*

*(LEPTON collides into QUARK. She falls with  
QUARK.)*



**ATOM**

ACCELERATOR.

*(Directing out.)*

**QUARK**

EXCELLENCE.

**ATOM**

QUARK, LEPTON, BOSON.

**QUARK**

NOTHING BUT...

**ATOM**

ELEMENTARY.

DOWN, UP, BOTTOM, TOP, CHARM, STRANGE.

**QUARK**

THAT IS ME.

**ATOM**

QUARK, LEPTON, BOSON.

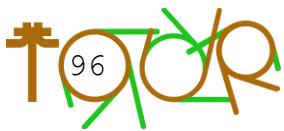
**QUARK**

NOTHING BUT...

**ATOM**

ELEMENTARY.

TAU, MUON, 'LECTRON.



**QUARK**

ON HER MIND.

*(Motioning towards LEPTON.)*

**ATOM**

QUARK, LEPTON, BOSON.

**QUARK**

NOTHING BUT...

**ATOM**

ELEMENTARY.

GLUON, PHOTON, W, Z, HIGGS.

**QUARK**

I'M READY.

**ATOM**

QUARK, LEPTON, BOSON.

**QUARK**

ALL THINGS ARE...

**ATOM**

ELEMENTARY PARTS.

*(Leaving.)*

## 25. BRING THE CONDUCTIVITY

(*LEPTON helps QUARK up.*)

### **LEPTON**

Я ПОДЪЕМ ТЫ. (ya pod"jóm ty.)  
I CARRY INTRINSIC, CURRENT NEWS,  
SOON BINDING.  
YOU'LL SET BOSON ON A COLLISION  
COURSE WITH WORK.  
HOLD FERMION, FOR HE'LL FEEL ELECTROWEAK.  
BRING THE CONDUCTIVITY.

### **QUARK**

IDEALS COME SO FAR.  
MATTERS,  
THEY COME TO ME.  
THANK YOU.

### **LEPTON**

YOU DOCTORATES...

(*QUARK points out the hypocrisy.*)

THERE IS NOTHING UNCONDUCIVE AS  
SENTIMENTS.

(*Growing lighthearted.*)

SPARK 'NOTHER ANGLE BEYOND OUR UNDERSTANDING.  
MEANWHILE, FOR MOVEMENT OF THIS LAB,  
I SHALL  
BRING THE CONDUCTIVITY!

(*Moving about.*)

**26. MASS CHARGE SPIN**

(ATOM leads BOSON into the space.)

(BOSON stops in his tracks.)

**BOSON**

DID NOT EXPECT YOU'LL BE  
THE PROSPECTIVE TECHNICIAN TO  
MASS CHARGE SPIN.

(QUARK and BOSON take two to tango.)

UNDER MY LIGHT, SO YOU REALLY CAN'T  
MASS CHARGE SPIN IT.  
INFLUENCE SO MASSIVE,  
YOU LACK THE CHARGE,  
ONLY HALF SPIN,  
MASS CHARGE SPIN  
THE QUANTUM ENTANGLEMENT—

**LEPTON**

I WILL FLUX OUT WITH HER.  
MASS CHARGE SPIN THIS.

(Coming between QUARK and BOSON.)

(BOSON loses his footing.)

**BOSON**

ELEMENTARY...  
ELEMENTARY...  
ELEMENTARY...  
ELEMENTARY...  
THAT IS YOU, LEPTON.  
YOU SUPERVISOR.

**BOSON** (cont.)

YOU OVERSEER.  
YOU ARE A TRAITOR.

(*LEPTON extends her hand to ATOM.*)

YOU ARE STILL OUR PRIDE.

(*ATOM comes to QUARK's defense.*)

(*BOSON submits.*)

ATOMIC NUMBERS.  
ATOMIC NUMBERS.  
ATOMIC NUMBERS.  
THE WAY YOU LIKE IT.

(*ATOM quickly comes to BOSON's side.*)

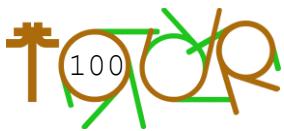
MASS CHARGE SPIN OFF.  
MASS CHARGE SPIN IN.  
MASS CHARGE SPIN, YEAH...  
MASS CHARGE SPIN YOUR WAY.

(*Opening up the Accelerator.*)

27. QUANTUM

[*The collider horizontally lies with no ends or openings in sight. The diameter of the tunnel is wider than any person's height.*]

(*TECHNICIANS mass charge spin out.*)



**TECHNICIANS**

QUANTUM ON!

**TECHNICIANS**

HADRON ON!

**TECHNICIAN**

ACCELERATE!

(*LEPTON and QUARK run around.*)

(*BOSON disappointedly heads towards the collider.*)

(*ATOM roams about.*)

**TECHNICIAN**

ACCELERATE!

**TECHNICIAN**

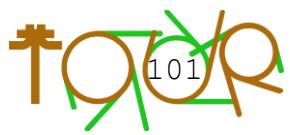
ACCELERATE!

**TECHNICIAN**

ACCELERATE!

**TECHNICIAN**

ACCELERATE!



**TECHNICIAN**

ACCELERATE !

**TECHNICIAN**

ACCELERATE !

*(TECHNICIANS collide with one another.)*

*(LEPTON and QUARK stop by the collider.)*

**LEPTON**

ACCELERATE !  
ACCELERATE !  
ACCELERATE !  
ACCELERATE !  
ACCELERATE !  
ACCELERATE !  
ACCELERATE !

*(Tapping QUARK.)*

**QUARK**

ACCELERATE !

**LEPTON**

**TECHNICIANS**

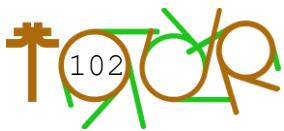
ACCELERATE !

**ATOM**

ALL'S ATOM SMASHING!

**TECHNICIAN**

LARGE HADRON COLLIDER !



**TECHNICIAN**

SEE THE QUANTUM WORLD!

**TECHNICIAN**

LARGE HADRON COLLIDER!

**TECHNICIAN**

FEEL THE QUANTUM WORLD!

**TECHNICIAN**

LARGE HADRON COLLIDER!

**TECHNICIAN**

BE THE QUANTUM WORLD!

**TECHNICIAN**

LARGE HADRON COLLIDER!

**LEPTON**

ACCELERATE!

ACCELERATE!

ACCELERATE!

**LEPTON**

ACCELERATE!

ACCELERATE!

ACCELERATE!

ACCELERATE!

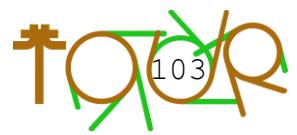
ACCELERATE!

**TECHNICIANS**

HADRON.

HADRON.

LARGE HADRON.



**ATOM**

POSITRON? 'LECTRON?

**TECHNICIAN**

LARGE HADRON COLLIDER!

**TECHNICIAN**

ALL SUBJECTS, TAKE YOUR PICK!

**TECHNICIAN**

LARGE HADRON COLLIDER!

**TECHNICIAN**

PICK UP THE QUANTUM BITS!

**TECHNICIAN**

LARGE HADRON COLLIDER!

**TECHNICIAN**

NOTHING IS MYOPIC!

**TECHNICIAN**

LARGE HADRON COLLIDER!

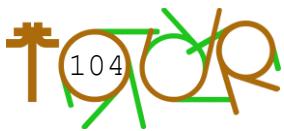
**QUARK**

THIRTY, LEPTON.

'LECTRON VOLTS.

WE CAN SHOOT TWINS.

PROTON BEAMS.



## **LEPTON**

YOU BRING YOUR LAWS  
OF PHYSICS  
TO FORM YOUR OWN THEORIES.

## **ATOM**

THEORIES!

## **LEPTON**

HADRON ON.  
HADRON ON.  
ACCELERATE.

## **TECHNICIANS**

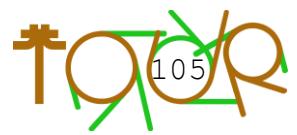
HADRON ON?!  
ACCELERATE.  
HADRON ON.  
ACCELERATE.  
ACCELERATE.

*(QUARK, LEPTON, and TECHNICIANS get closer together.)*

ACCELERATE.  
ACCELERATE.  
ACCELERATE.  
ACCELERATE.

## **LEPTON**

LARGE  
HARDRON  
COL-



**LEPTON**

LID—  
ING!  
PARTICLES!

**TECHNICIANS**

ACCELERATE  
TWIN PROTON BEAMS.

(*Expanding.*)

(*LEPTON grabs ahold of ATOM.*)

(*QUARK, LEPTON, ATOM, and TECHNICIANS clump together.*)

**QUARK**

WHO MAKES THE UNIVERSE?

**LEPTON**

**ATOM**

**TECHNICIANS**

QUARK!

(*TECHNICIANS accidentally push out ATOM to rally around QUARK.*)

## 28. FUSION

(*QUARK, LEPTON, and TECHNICIANS converse.*)

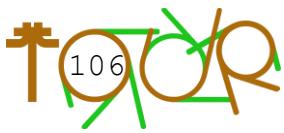
(*ATOM looks on.*)

**ATOM**

WHERE IS THE FUSION? EFFUSION.  
JUST CONFUSION. DIFFUSION, WHERE'S IT?

(*Looking upon BOSON.*)

DON'T GO NUCLEAR.  
IT IS CLEAR.



(ATOM heads to BOSON.)

**ATOM** (cont.)

BOSON.

WE HAVE THE VISION. REVISIT.

IRON IT OUT. OXYGEN. CARBON.

WE'RE IN THE CLEAR.

(BOSON try to distance from ATOM.)

REFUSION.

(Grabbing ahold of BOSON.)

FUSION WITH ME.

(BOSON and ATOM fusion dance.)

JUST FUSION.

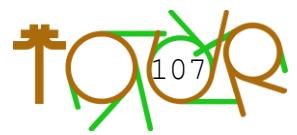
(LEPTON head to BOSON and ATOM. She splits BOSON and ATOM.)

LET US GO NUCLEAR FUSION.

(LEPTON directs BOSON to QUARK. She accompanies ATOM out.)

29. SYNCHROTRON

(Time freezes as BOSON slowly heads to QUARK and TECHNICIANS. He looks on at the collider. He grows overly sentimental.)



(TECHNICIANS *frozenly remain unsurprised.*)

**BOSON**

THE SYNCHROTRON...

(*Feeling both fervent and displeased.*)

YOUR LIVES HAVE ACCELERATED  
BELOW MY THOUGHTS.

'LOW MY WILDEST DREAMS...  
I CANNOT STRESS THIS ENOUGH.  
WELCOME TO THE ORIENTATION, QUARK...  
DON'T TOUCH ANYTHING AT ALL, YOU HEAR ME? SYNC UP.

(TECHNICIANS *open the collider.*)

DEMONSTRATE HER WORK. SYNCHROTRON.

(*BOSON sprints into the collider.*)

**TECHNICIANS**

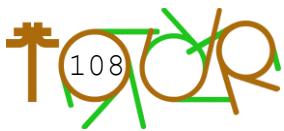
CIRCULATE WITHIN THIS VESSEL.  
IN THE END, WE'LL HAVE A NICE RUN.

(*BOSON returns, holding out a bright, hearty object.*)

(TECHNICIANS *promptly jog into the collider.*)

**BOSON**

LET MAGNET GUIDE YOU.  
LET MAGNET FLOW THROUGH.



(TECHNICIANS return, carrying unpleasant discoveries.)

**TECHNICIANS**

LET MAGNET GUIDE YOU.  
LET MAGNET FLOW THROUGH.

(QUARK slowly enters the collider.)

(BOSON tries to be supportive.)

**BOSON**

MATTERS ARE TREASURE.  
I'VE UNEARTHED TOO MUCH.

(Selfishly smirking.)

(QUARK returns, unearthing a colourful treasure.)

**QUARK**

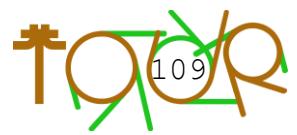
THE SYNCHROTRON...  
ALL OF YOU JUST NEED TO SLOW DOWN.  
HAVE TIME TO THINK.  
FORCE SOME HOPE INSIDE.  
AND I'LL RELEASE YOUR PRESSURE.

(Handing the colourful treasure to TECHNICIANS.)

(BOSON swipes away the colourful treasure.)

**BOSON**

LET MAGNET GUIDE YOU.  
LET MAGNET FLOW THROUGH.  
IT DOES NOT MATTER.  
I'VE UNEARTHED...



(*QUARK immediately takes out another colourful treasure from the collider.*)

**BOSON** (cont.)

SYNC UP!

**TECHNICIANS**

ZIP IT!

**QUARK**

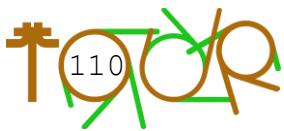
TOOLS LIKE YOURS HAVE MANY APPLICATIONS UNDER DIFFERENT FIELDS LIKE OURS  
BUT YOU USE IT TO DEVIATE THE PARTICLES FROM THEIR PATHS AND EMIT LIGHT,  
THEREBY THE POTENTIAL SPEED OF BEAMS ARE CUT SHORT,  
WASTING OUR TIME  
AND SYNCHROTRON'S.  
PERHAPS, LETTING YOUR SUBORDINATES WORK AS LONG AS YOU DO WILL CHANGE MATTERS.  
LET THESE TECHNICIANS JOIN IN ON THE ENTIRE SYSTEM OF BEAM LINES.  
TECHNICIANS, RADIATE, SHOW US THE INVISIBLE, PHYSICAL WORLD.  
DO SYNCHROTRON.

(*TECHNICIANS uncover abundant objects.*)

**BOSON**

RECALL ME DEFUNDING THE DESERTRON?

(*QUARK uncovers sand in the collider. She hurls sand at BOSON.*)



110

**BOSON** (cont.)

WELL, SEEMS LIKE YOU HAVE MOVED ON AND ARE UP FOR STATES,  
GROUNDED, YOU'RE IN CHARGE.  
NOW SYNC UP WITH THE SYNCHROTRON.

(*Marching off.*)

**30. HYPERCHARGE**

(*QUARK gather TECHNICIANS. She sends each TECHNICIAN into the collider.*)

(*Each TECHNICIAN run around the edge of the space, even beyond into the outer space or the audience. They may uncover various objects and when they do, they place them with QUARK.*)

**TECHNICIANS**

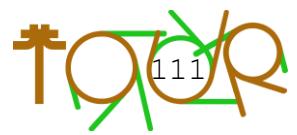
HYPERCHARGE!  
HYPER! HYPER!  
HYPERCHARGE!  
HYPER! HYPER!

(*LEPTON arrives with paperwork and pens. She hands some papers and a pen to QUARK.*)

**LEPTON**

HOW DOES IT FEEL TO BE IN HYPERCHARGE?  
HOW DOES IT FEEL TO BE IN HYPERSPACE, ALL?!

(*LEPTON and QUARK sketch each uncovered object.*)



**TECHNICIANS**

HYPERCHARGED!  
HYPED UP! HYPED UP!  
HYPERCHARGED!  
HYPED UP! HYPED UP!

**LEPTON**

THIS SENSATION HAS MADE ME FEEL SO CHARGED!  
I AM TRULY NOTHING BUT HYPERACTIVE!

(ATOM arrives.)

(TECHNICIANS acknowledge ATOM's presence  
when passing by ATOM.)

(ATOM watches as TECHNICIANS move on to  
QUARK.)

**ATOM**

STRONG INTERACTIONS ARE WHY THE ACCELERATOR RUNS.  
STRONG INTERACTIONS ARE WHY NO ATTENTION IS PAID TO...

(Mitioning towards themself.)

(LEPTON excitedly moves towards ATOM.)

THERE ARE ORBITALS.  
OUT THERE FOR ME.

**LEPTON**

AGREED.

(Orbiting ATOM.)

**ATOM**

LESS NEGATIVITY IN MY LIFE, PLEASE.

(Joining a group of TECHNICIANS.)

(LEPTON unexcitedly returns to QUARK. She returns to sketching.)

(QUARK watches as LEPTON's quality of sketches diminishes.)

**LEPTON**

I AM NOTHING BUT WEAK INTERACTIONS.  
HOW DOES IT FEEL TO BE SO HYPERSENSITIVE?

**TECHNICIANS**

UNDERCHARGED!  
PIPE DOWN. PIPE DOWN.  
UNDERCHARGED.  
HYPELESS. HYPELESS.

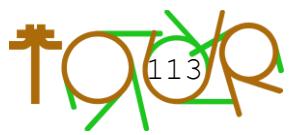
(TECHNICIANS close the entry of the collider.  
They depart.)

**31. ISOSPIN**

(BOSON enters. He takes the paperwork from QUARK and LEPTON.)

**BOSON**

THERE IS NO WAY TO SPIN THIS.  
I NEED TO EIGENSTATE THE  
OBVIOUS LEADERSHIP HERE.  
YOU PUT HYPER IN THE CHARGE.



## QUARK

UM...

## LEPTON

YOU HAVE JUST SCALAR AND YOUR STANDARDS  
HASN'T A QUIRK.  
SHE'S FUNDAMENTAL TO ME AS IS TO YOU,  
BOSON.  
ATOM.

*(Intently looking at ATOM.)*

SHE SO SPINS.

*(Dispiritingly spinning off.)*

## BOSON

ISOSPIN STRONGLY.

*(Glimpsing where LEPTON exited.)*

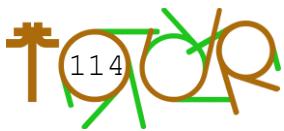
ISOSPIN EFFUSION REALLY.  
ISOSPIN ALL THIS.  
ISOSPIN CAN'T BELIEVE THIS.  
I HAVE PROPOSALS.

*(QUARK distances.)*

*(ATOM taps BOSON.)*

OH TAU..  
WE CAN REFUND DESERTRON.  
SUPERCONDUCTING SUPER THING.  
THERE WILL BE A SLEPTON OF CASH.  
ISOSPIN CAN'T WAIT.

*(QUARK focuses on the collider.)*



**BOSON** (cont.)

ISOSPIN CAN'T BE UP FOR DEBATE.  
ISOSPIN CANNOT.

(*Directing ATOM.*)

ISOSPIN YOUR TIME WITH THIS SQUARK.

(*Leaving.*)

(*ATOM leaves.*)

## 32. SUBATOMIC

(*TECHNICIANS enter. They stand in line by the entry of the collider.*)

**TECHNICIAN**

WHAT IS YOUR FIRST ORDER SANDWICH? I'M GOING WITH THE ATOMIC.

**TECHNICIAN**

DEVIATION CALLS FOR MY ORDER TO BE WITH EXTRA PICKLES.

**TECHNICIAN**

SODIUM CHLORIDE WITH YOUR FRUITS OF LABOUR? YOU ALL MAKE ME SICK.

(*QUARK stands in the back of the line.*)

**TECHNICIAN**

SICKLE CELLS, IT'S QUARK! GET YOUR PHYSICS UP-DOWN-TOP-BOTTOM-STRANGE-CHARM HERE!

(QUARK admirably heads to the front of the line.)

(ATOM opens the collider from the inside.)

**ATOM**

OSCILLATIONS!

WHAT WILL IT BE, SUBTROPICAL?

(Presenting an empty margarita glass.)

DO NOT THINK TOO SUBCONSCIOUSLY.

(Swirling their finger in the glass.)

CHOOSE A LEVEL, SUBMARINE DOWN?

(Stowing away the glass.)

DO NOT BE A SUBORDINATE, QUARK.

**TECHNICIAN**

SUB IN A PAIN COMPLET.

**TECHNICIAN**

SUB IN ANY BÁNH MÌ.

**TECHNICIAN**

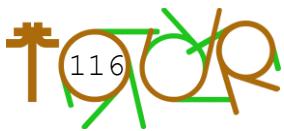
SUB IN A ВКУСНЫЙ (darnitskiy).

**TECHNICIAN**

SUB IN SOME SORT OF BREAD.

**TECHNICIANS**

SUBMIT.



## **QUARK**

DON'T THINK IT MATTERS.

I'D LIKE A SUB.

A SUBATOMIC.

## **ATOM**

SUBATOMIC AS IN THE YEAST?

SUBATOMIC AS IN THE CHEESE?

SUBATOMIC WITH ANY WEDGE?

SUBATOMIC'S PICKY, SALID? QUIRK?

## **TECHNICIAN**

SUBTLE IN DISCORDANCE.

## **TECHNICIAN**

SUBTLE MANNERISM.

## **TECHNICIAN**

SUBTLE WITH THOUGHT PROCESS.

## **TECHNICIANS**

SUBTLY LOST HERE LIKE IN

QUANTUM.

## **QUARK**

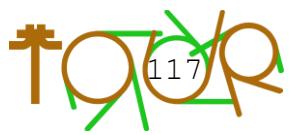
IT'S RATHER BASIC.

I AM A SUB.

A SUBSTITUTION...

## **ATOM**

CLOSING CIRCUIT EARL-



(ATOM closes the entry of the collider.)

**ATOM**

SORRY. ISOSPIN.

**TECHNICIAN**

LOOKS LIKE WE GOT SODIUM...

**ATOM**

SINK TO YOUR LEVEL, SUBATOMIC!

(Getting down with QUARK.)

SINK TO MY LEVEL, SUBATOMIC!

(TECHNICIANS get down with QUARK and ATOM.)

**TECHNICIANS**

BASIC THAN THE BASIC UNIT.

(Staring at ATOM.)

NO EXCHANGE, FOR WE'LL GET DOWN WITH YOU  
A LEVEL!

**ATOM**

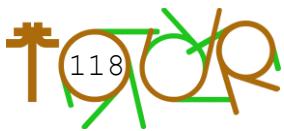
SINK TO HER LEVEL, SUBATOMIC!

(ATOM and TECHNICIANS level themselves.)

SINK TO HER LEVEL!  
SINK TO HER LEVEL!  
SINK TO THE LEVEL!

**TECHNICIANS**

SING AT HER LEVEL!



118

(ATOM adjust themselves.)

**ATOM**

SUBATOMIC!

**33. MESON**

[The space brightens.]

(BOSON appears. He dismisses the light.)

[The space dims.]

(TECHNICIANS exit.)

**BOSON**

I RESIGN. I RESIGN.  
I'VE TAKEN IT TOO LIGHTLY, BUT MESON.

(ATOM demonstrates their disapproval.)

ATOM.

I'LL RESIGN. I'LL RESIGN.  
I'VE GOT HEAVY NEWS TO DECLARE ABOUT  
LEPTON.

**ATOM**

BOSON, WHERE IS THE LIGHT TRANSMITTED WHEN YOU ARE  
GONE?

MASONS, BOSON, WHERE ARE THE WAVES' DIRECTIONS WITH NO  
GUIDANCE?  
REASON?

**BOSON**

I CAN TRUST. I CAN TRUST.  
THE MATTER THAT HAS MADE UP EVERYTHING. ATOM.  
IT IS YOU.

(*BOSON immediately pivots to QUARK.*)

IT IS QUARK.  
YOUR FIRST DUTY AS THE NEW DIRECTOR OF THE—

**ATOM**

BOZO, THERE'S NOTHING LIGHT TO TAKE FROM THIS MASON'S MIND.  
LEPTON, BOSON, WHY NOT PICK THE ELECTRIC DEPOSITION?  
TREASON.

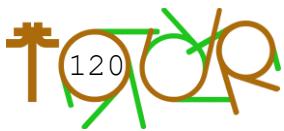
**BOSON**

SHE'S SOMETHING. NOT ALRIGHT.  
SHE HAS LOCKED HERSELF IN THE COLLIDER,  
SOMEHOW.  
I DON'T KNOW. I DON'T KNOW.  
I DON'T KNOW WHAT HAS GOTTEN INTO HER.  
OH WELL.  
SHE'S WORTHY.

(*Addressing QUARK.*)

YOU'RE WORTHY.  
MY WORTH IS BEYOND THIS ACCELERATOR.  
QUBITS.  
SAVE LEPTON. SAVE LEPTON.  
YOU TWO WILL RUN THE LAB LIKE YOU'RE MESON.  
GET YOUR TWO.

(*Leaving.*)



## 34. PION

### **QUARK**

IT SEEMS MY  
RESPONISIBILITIES HAVE PILED ON.  
AND MY RESPONSE WILL RECONCILE LEPTON.

### **ATOM**

RADIOACTIVE DECAY SURELY WON'T STOP YOU?

### **QUARK**

YOUR TROUBLES WILL SURELY NOT BE PIONS.  
YOUR INTERACTION'S NEVER PION.

### **ATOM**

HAVE YOU EXPERIENCED HIGH LEVEL COLLISIONS?

*(QUARK looks away.)*

### **QUARK**

LACK OF INTERACTIONS DID PILE ON.  
IT ALSO HELPED ME EXILE BOSON.  
I'M ALSO DRAWN TO THIS...  
PATTERN. FIRST ORDER, ATOM.

*(Harnessing the newfound power as she stares down ATOM.)*

I FORGIVE YOU.

*(Heading to the collider.)*

### 35. DEUTERIUM

#### **ATOM**

I AM STABLE AS ANY DEUTERIUM...  
PRIMARI— REALLY, OUR INNER PROTONS AND OUR NEUTRONS  
ARE PAIRED.  
SECONDARY.  
I AM WELL-OFF AS AN OLD DEUTERAGONIST.  
PRIMARI— REALLY, POSITIVITY, NEUTRALITY ARE PAIRED.  
SECONDARY.

*(Stably dancing.)*

QUARK MAKES UP THE WORLD.  
IT'S QUARK, MAKES UP THE WORLD.  
JUST BREATHE.

*(Taking a breath.)*

THERE ARE EIGHT PROTONS.

*(Taking a breath.)*

THERE ARE EIGHT NEU—  
I HATE.  
I AM STABLE AS ANY DEUTERIUM...  
PRIMARI— REALLY, OUR INNER PROTONS AND OUR NEUTRONS  
COMPARE.  
SECONDARY.  
I AM WELL-OFF AS AN OLD DEUTERAGONIST.  
PRIMARI— REALLY, POSITIVITY, NEUTRALITY ARE THEIRS.  
SECONDARY.

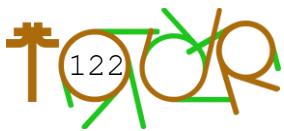
*(Hopelessly walking away.)*

### 36. ELECTRON

*(QUARK tries to listen in on the collider.)*

#### **QUARK**

LEPTON.  
ELECTRICITY AND CHARGE ARE NOT FLOWING THROUGH.  
SUPERVISOR, YOU HAVE BEEN QUITE NEGATIVE.



**TECHNICIANS**

ELECTRON NEUTRINO. LEPTON!

**QUARK**

LEPTON.  
YOUR DENSITIES ARE BOUNDLESS,  
EXCHANGE REPULSION.

*(Frustratingly looks away.)*

THIS ADVISOR, AGAIN. YOU'RE BACK, SCATTERING!

*(TECHNICIANS enter. They impact one another.  
They collapse.)*

**TECHNICIANS**

ELECTIVE NEUROTIC... LEAP ON!

*(QUARK worries.)*

**QUARK**

LEPTON.  
PLEASE EFFUSION THE BINDING ENERGY HOLDING YOUR FUSE.  
YOU'RE MY COMRADE BECAUSE WITH YOU, I'M POSITIVE.

*(LEPTON echoes from within the collider.)*

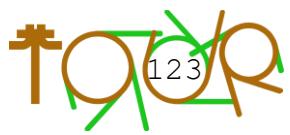
**LEPTON**

NO. NEGATIVE. NEGATE. I'M IN A BIND. NEGATIVE. ION. I  
AM NEGATIVE.

**TECHNICIANS**

ELECTRON NEUTRINO. LEPTON!

*(QUARK stands strong.)*



## QUARK

ZERO NET ELECTRIC CHARGE.  
THAT'S HOW MUCH THERE WILL BE WHEN YOU ARE NOT AROUND  
THE COLLIDER.  
DO NOT LET YOUR CRIES BE THUNDEROUS WITHOUT THE  
STREAMS OF LIGHTNING.  
YOU HAVE FALLEN FROM THE COSMOS TO REIN IN THE  
PARTICLES.  
VALENCE!

## TECHNICIANS

YOU IN THE GOLD FOIL  
EXPERIMENT,  
DENSITY FILLED OUR VOID.  
YOU'RE STATIC, ELECTRON,  
REIN IN THE CHARGE!

*(Prying open the collider.)*

## LEPTON

HEART.  
REACTIVE.  
MANY HAVE A LOT TO GAIN. MOSTLY TO LOSE FROM ME.  
ATOM...  
I HAVEN'T GOT A MENTAL CONFIGURATION.

*(TECHNICIANS stand at attention.)*

## QUARK

NOTHING TO CONFIGURATE.  
TAKE INTO ACCOUNT THAT YOU'LL BE OPEN TO OTHER  
COLLISIONS.  
ATOMIC CLOUDS YOU AND YOU FORGET LIFE'S MORE THAN  
IONIZING.  
AS ATOM SHOULD DO, I'LL CAPTURE YOU BEFORE YOU EVER  
DECAY.  
VALID!

(*QUARK tenderly enters the collider.*)

**LEPTON**

PASS...  
THE VALENCE.  
NO NEED THE VALIDATION FOR I AM DENSITY.  
FREELY,  
WE WILL ALWAYS BE FUNDAMENTAL MATTERS.

(*LEPTON reveals herself, outside the collider. She dances across, parallel to the exterior of the collider. She leaves, without noticing QUARK.*)

[A sudden flash of light fills the insides of the collider. Blood may splatter within the inner walls of the collider. An echoing gunshot follows.]

(*TECHNICIANS scatter away.*)

(*QUARK feels the impact. A remarkably colourful attire swiftly clothes her. She collapses.*)

**37. POSITRON**

(*QUARK lies inside the collider.*)

(*LEPTON remains absent.*)

**LEPTON**

THESE SCHOLARS.  
ALL WILL SPARK  
WELL-ROUNDED...

[*The space brightens.*]

(*BOSON slyly arrives.*)

(*QUARK tries to budge.*)

**BOSON**

THE HIGHER THE ENERGY LEVEL, THE HIGHER ITS FALL.  
STUDENT.  
BRIGHTER...

(*BOSON curves around to the entry of the collider.*)

(*QUARK succumbs to her injuries.*)

(*BOSON cautiously enters the collider. He examines QUARK. He looks away.*)

(*ATOM hides themself in the collider. They hold onto the operator's control, like a weapon. ATOM is beyond unstable.*)

**ATOM**

TO ME.  
I MADE YOU, EVERYTHING ABOUT YOU.

(*BOSON drags ATOM out.*)

38. FISSION

**BOSON**

I ENVISIONED THAT THINGS WOULD GO DOWN.  
BUT I NEVER ENVISIONED WHAT'S UP.  
I ENVISIONED HER RISE TO THE TOP.  
YOU DON'T ENVISION ROCK BOTTOM.

**ATOM**

SHE HAD NO CHARM.  
OUR CONFIGURATIONS HAVE BEEN JUST STRANGE.  
WHAT HAS STILL LINGERED ARE HER FLAVOURS.  
FORGET HER LIKE ETHER AS A FAVOUR.  
THE WORLD NOW SPINS.

*[A spotlight centers on ATOM.]*

*(ATOM grows instable. They may cry.)*

**BOSON**

YOU MUST FISSION TO SEE THE WRITING.  
THOUGH YOU DESERVE FISSION ON THE WALL.  
YOU MUST FISSION TO KNOW SHE'S NOW LAW.  
I HAVE TO FISSION YOU, ATOM.

*[The spotlight intensifies.]*

*(BOSON seizes the control.)*

*(ATOM grows instable. They may laugh or cry,  
but they go insane.)*

**ATOM**

THERE ARE NO LAWS.

SHE HAD SPLIT US WITH RANDOMIZATION.

ALL THAT WAS IS PROBABILITY.

ALL THAT IS LEFT IS INSTABILITY.

*(Trying to crawl away into the collider.)*

THE WORLD NOW SPINS  
LIKE THE SUN!

I MADE YOU PART...  
EVERYTHING!

*(In the collider, BOSON smashes ATOM with the control. He splits ATOM.)*

**39. PARITY**

*(TECHNICIANS march in. They each discretely hold a horseshoe magnet. They encircle BOSON.)*

**BOSON**

THEY SAW THE LIGHT.

LASTING FISSION.

ATOM IS SPLIT.

CLEAN THE FALLOUT.

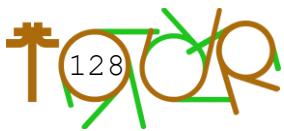
ENSURE SAFETY.

LET'S START OVER.

WHAT ARE YOU STANDING FOR?

*(TECHNICIANS whip out their magnets. They point their magnets towards BOSON, like a circular firing squad.)*

*(BOSON loses control of his body.)*



**TECHNICIANS**

BOSON.  
WE HAVE COME TO REPEL  
YOUR LIGHT!

**BOSON**

PHOTONS?!  
MAGNETIC PHOTON!  
I CANNOT BE A PARITY!

*(Lowering to his knees.)*

**TECHNICIANS**

BOSON.  
NONE OF US WILL ATTRACT  
YOUR MIGHT!  
ATOM HAD ALWAYS PULLED US TOGETHER.  
ATOM WILL HAVE AN EVERLASTING VISION!

*(BOSON increasingly chokes.)*

**BOSON**

ALL ARE  
GOING AWOL-WOL.  
MONOPOLE! IT'S A PARODY!

**TECHNICIANS**

BOSON.  
CAN YOU JUST CONCENTRATE?  
YOU MIND?

**BOSON**

I AM MODELLED BEYOND STANDARDS, BEYOND THIS COLLIDER!  
I AM IN GAUGE AND SCALAR, COUPLED WITH LEP-

*(Forcibly silenced.)*

40. BARYON

*(LEPTON makes her presence known from within the entry of the collider. She fearfully inspects an unrecognizable QUARK. She pushes away QUARK. She drags out ATOM's corpse.)*

**LEPTON**

I'VE NO RESULTS IN THESE DAYS GONE.  
NO LONGER HAVE SOMEONE PREON.  
THIS IS FINAL, OUR LAST HOUR.  
BARYON...  
THROUGH THE COURSE  
OF UNIVERSITY TOUR.  
OF ACCELERATED TOUR.  
OF UNIVERSAL TOUR.  
BARYON...  
UNDERNEATH  
IS YOUR INNER GOD PARTICLE.  
SIX TERRA 'LECTRON VOLTS UNDER.  
PARTICULARLY ДЕРЬМО (der'mo) .

*(BOSON mutely pleads to LEPTON to stop TECHNICIANS.)*

BARYONS...

*(TECHNICIANS cock their magnets.)*

END THE LIGHT.

*(TECHNICIANS twist their magnets.)*

*(BOSON's neck snaps. He dies.)*

[A darkness suddenly swallows everything but the entry of the collider.]

(LEPTON drags ATOM back into the collider.)

(TECHNICIANS rush away to escape from the darkness. Those who get caught in the darkness stop in their tracks and perhaps, die. They regrettably drag BOSON into the collider.)

(TECHNICIANS drop two magnets by LEPTON)

(LEPTON looks on at the darkness dwelling outside. She holds a magnet in each hand. She stares at ATOM. She looks at the space. She angelically waves her arms up and down.)

**LEPTON** (cont.)

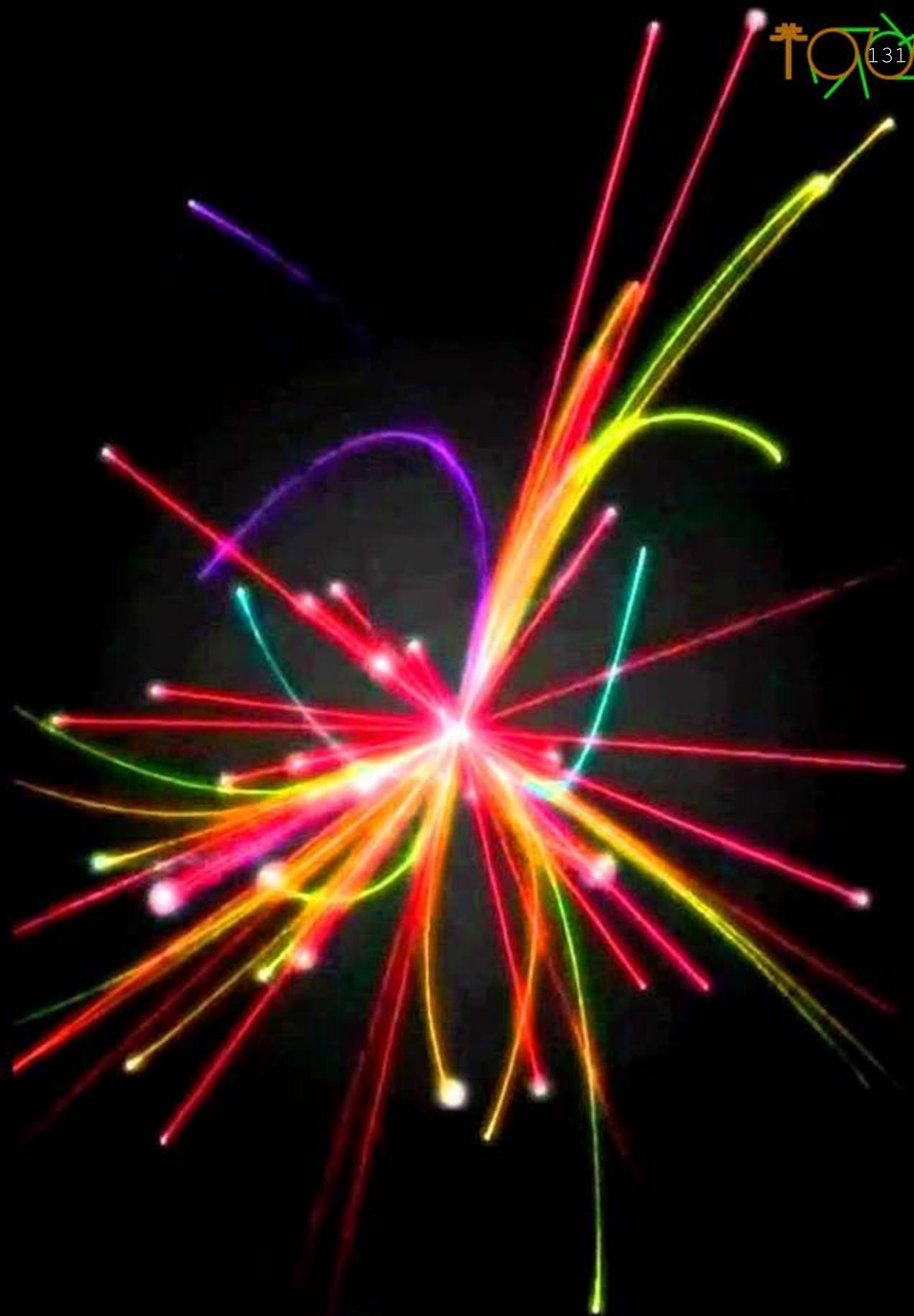
OSCILLATIONS...

(Directing the magnets towards her head.)

[Unnecessary, blood may splatter the inner walls of the collider.]

(LEPTON falls back, dead.)

*End of Act -No Intermission-*



# ACT III

41. DECAY

[*Quantum World*]

(*QUARK is suited as a colourful particle.*)

[*The spotlight follows QUARK.*]

(*Colourful PARTICLES flow out from the entry of the collider. They shoulder QUARK. They gently set QUARK on her feet.*)

(*LEPTON is suited as a ghostly particle. She wanders out of the darkness. She spiritedly orbits QUARK.*)

(*BOSON is suited as a godly particle.*)

[*The space brightens.*]

(*PARTICLES carry out BOSON from the entry of the collider.*)

(*BOSON proudly gets off of PARTICLES.*)

(*ATOM is suited as a massive particle. They shyly enter from the entry of the collider.*)

(*PARTICLES follow ATOM. They orbit ATOM.*)

**42. SUPERSYMMETRY**

(*QUARK, LEPTON, BOSON, ATOM, and PARTICLES can only marvel at their supersymmetry.*)

**QUARK**

**LEPTON**

**BOSON**

**ATOM**

SUPERSYMMETRY.

WE DREAMT TO BE WELL-ROUNDED.

WE'RE ALL A PERFECT SPHERE.

SUPERSYMMETRY.

WE DREAMT TO BE WELL-ROUNDED.

WE'RE ALL A PERFECT SPHERE.

[*Time is stasis.*]

(*ATOM looks at their shadow. They split off.*)

**PARTICLES**

SUPERPARTNERS. SUPERPARTNERS.

GIVE OUR ALL TO OUR PARTING GOALS.

SUPERPARTNERS. SUPERPARTNERS.

NO LONGER GROUNDED. LIVE EXCITED STATES.

(*QUARK vanishes.*)

SUPERPARTNERS. SUPERPARTNERS.

GIVE OUR ALL TO OUR PARTING GOALS.

SUPERPARTNERS. SUPERPARTNERS.

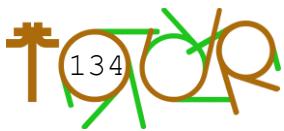
OPERATORS. THE WAVE FUNCTIONS.

(*LEPTON scatters away.*)

SUPERPARTNERS. SUPERPARTNERS.

GIVE OUR ALL TO WORLDS OF PHYSICS.

SUPERPARTNERS. SUPERPARTNERS.



## PARTICLES (cont.)

CONCLUDES OUR TOUR. SUPERSYMMETRY.

(*Perfectly spinning.*)

## BOSON

YOU SPARTICLES.

(*Having enough and leaving.*)

[*Blackout.*]

## 43. KNOT

(*BOSON arrives, in front of marching PARTICLES.*)

[*Lights up.*]

(*BOSON bows.*)

(*LEPTON arrives, orbiting PARTICLES. She bows.*)

(*QUARK arrives with PARTICLES orbiting her. She bows.*)

(*ATOM arrives with PARTICLES orbiting them. They bow.*)

(*PARTICLES merge away from QUARK, LEPTON, BOSON, and ATOM. They bow.*)

(*QUARK, LEPTON, BOSON, and ATOM fuse. They bow.*)

(*Optionally, PARTICLES orbit ORCHESTRA.*)

(*Optionally, QUARK, LEPTON, BOSON, and ATOM pull out CREW.*)

(*Fondly, PARTICLES orbit AUDIENCE MEMBERS, especially those who are socially isolated.*)

*Close circuit*

# AUTHOR'S CONTACT



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