# DIRECTOR'S SCRIPT



Book, Music, and Lyrics DAVID QUANG PHAM

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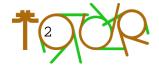
TOUR

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A Musical

by

David Quang Pham



## THANK YOU

Name	Role
Emily Johnson	Data Scientist
Marcos "Danny" Caballero	Professor of Electromagnetism
Montana Earegood	Copyeditor
Ruthann Gregory	Physicist
Kaliyah Jetton	Original Unofficial Reader
Collin Bailey Jonkman	Original Unofficial Reader
Rebecca Chan	Original Unofficial Reader
Vanessa Bond	Original Unofficial Reader
Brian de Vries	Original Unofficial Reader
Madelyn Paquette	First Reading Host (April 24, 2020)
Haley Baird	Originated Reader of Quark
Bianca Waechter	Originated Reader of Лептон
Peter Louis Epstein	Originated Reader of Boson
Carina Goebelbecker	Originated Reader of Atom
Monica Cross	Originated Reader of the ensembles
Marie Incontrera	Originated Narrator
Kami Visitsak	Originated Singer of Quark
Diana Easter	Originated Singer of Лептон
Brian Egland	Originated Singer of Boson
Rina Lubit	Originated Singer of Atom



#### SYNOPSIS

What discoveries can be made when matters collide? Plenty of matters are missed in these life-changing impacts but coming around is possible with atom smashers. Set in the University to the Accelerator, *TOUR* is a musical drama that tells the story of four physicists — Quark, Лептон, Boson, and Atom — interacting in their field while taking on the ramifications when crossing each other's lines.

Quark enters the University as a student, dreaming of becoming a physicist. Professor Boson connects her to magnetism. However, their opposite charges never attract but an instance of perhaps, identical. Лептон takes charge of Quark's livelihood each time Quark gets cut down by Boson; he has the power to fail anyone and even defund institutions.

With the introduction of this musical thesis, Quark acquires the circuits to bring unharnessed energy to the Accelerator. During the act that follows, Quark fulfills what the Accelerator is destined to accomplish. The success ends when Quark reaches supersymmetry during a particle accelerator "accident."



#### CHARACTER BREAKDOWN

Character	Vocal Range	Gender	Age	
QUARK E A physics stude	Mezzo-Soprano — Soprano ent and physicist.	Woman	Adult	
ЛЕПТОН (lepton)Alto — Mezzo-SopranoWomanAdultA doctoral advisor and lab supervisor.				
BOSON A physics profe	Bass — Tenor essor and lab director.	Man	Adult	
ATOM A physics school everything.  Ensemble	Any lar and a right-hand scientist	Any that makes up	Adult for	
- STUDENTS	- RESEARCH ASSISTANTS - POLITICIANS	- PROFESSORs		

### NOTES ON ATTIRE & COSMETICS

Performer portraying Quark: In the emergence era of co-op research, she would fit in with generally a blouse, a belted skirt, and close-toed heels. She eventually lugs around her sentimental green helmet, attached to a lanyard around her neck.

Performer portraying Лептон: She soils her science gear when she is working, but when she is not, she wears much more dull clothes. She dresses up as a rancher near the Desertron. She wears her orange helmet at the Accelerator.

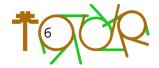
Performer portraying Boson: He is suited to take on tenures. To demonstrate his reign, he is well-dressed for the Accelerator. He is a photonic figure, therefore brightening up the place.

Performers portraying technicians: The orange clothes and safety gear are for physics.



## MUSICAL NUMBERS

<b>₽</b> #	Title	Character(s)
1.	Eigen	COMPANY but QUARK
2.	Exchange Particle	QUARK ATOM
3.	Torsion	QUARK   ЛЕПТОН
4.	Available Energy	QUARK
5.a.	Tachyon	QUARK BOSON ATOM JEПТОН students
6.	Nuclide	QUARK BOSON ATOM
7.	Entanglement	QUARK BOSON
8.	Crossing Field Lines	QUARK BOSON
9.	Centration	QUARK BOSON research assistants
10.	G	QUARK   ЛЕПТОН   ATOM   professors
11.	Anyon	QUARK
12.	Valence	QUARK   ЛЕПТОН   ATOM   students
13.	Effusion	QUARK
14.a.	Super Collide	QUARK JETTOH technicians
15	Particulate	QUARK ATOM
16.a.	Slepton	QUARK BOSON ATOM politicians technicians
17.	Backscatter	QUARK   ЛЕПТОН
18.	Electroform	QUARK ATOM technicians
19.	Antimatter	QUARK
20.a.	Preon	QUARK   ЛЕПТОН
21.	Mole	COMPANY but ATOM
22.	Elementary Particle	QUARK ATOM
23.	Bring the Conductivity	QUARK   ЛЕПТОН   ATOM
24.	Mass Charge Spin	QUARK   ЛЕПТОН   BOSON   ATOM
25.	Hadron	QUARK   JETTOH   BOSON   ATOM   technicians
26.	Fusion	QUARK BOSON ATOM
27.	Synchrotron: Magnet-Guided	QUARK BOSON ATOM technicians
28.	Hypercharge	QUARK   JETTOH   BOSON   ATOM   technicians
29.	Isospin	QUARK   ЛЕПТОН   BOSON   ATOM
30.	Subatomic	QUARK ATOM technicians
31.	Meson	QUARK BOSON ATOM
32.	Pion	QUARK ATOM
33.a.	Electron	QUARK JETTOH technicians
34.	Fission	QUARK   BOSON   ATOM
35.	Photonic Parity	QUARK BOSON technicians
36.	Baryon	QUARK   ЛЕПТОН   ATOM
37.	Decay (movement)	QUARK particles
38.	Supersymmetry	QUARK   ЛЕПТОН   BOSON   ATOM   particles
39.	Knot (bow)	COMPANY



## SCENES & SET DESIGNS

Scene	Page	Location	SET   props
I 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, packets, papers, scantrons
I ii	50	Desertron	operator's control cash
I iii	68	Magnet Factory	DESK hold magnets, metals, a light bulb, wire
II i	75	Accelerator	TUNNEL
III		Quantum World	





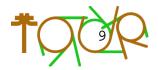
ACTI



#### 1. EIGEN

#### SCENE i

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[University]
(ATOM arrives. They find the spot(s) to
tango.)
(STUDENTs move randomly about.)
(BOSON enters. He approvingly taps ATOM.)
(ATOM directs STUDENTs in an orderly
fashion.)
(BOSON briefly observes. He departs.)
(ЛЕПТОН rushes in, carrying papers. She
orbits ATOM. She hands the papers to ATOM.
She wildly roams around.)
(ATOM tries to direct JETTOH but to no avail.
They refocus on STUDENTs.)
(ЛЕПТОН takes the papers from ATOM. She
rushes out.)
(STUDENTs bring in a particle board and a
desk.)
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[The particle board displays a schedule, holds a box of tacks, and hides a desk.]

(STUDENTS neatly exit.)

#### 2. EXCHANGE PARTICLE

(ATOM staffs themself by the particle board.)

(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? ESCAPED IONS.

(ATOM sees through QUARK. They dismiss her.)

WHAT AM I, PART OF? COURSES FULL?

(Humbling herself.)

EXCHANGE.

IT'S NOT WHO I AM.

THE REAL ME.

NOT BEST IN SCIENCE.

I FORCED MYSELF.

GIVE MY ALL TO PHYSICS.

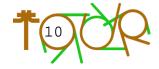
(Giving up.)

MY PARTING GOALS.

ATOM

QUARK.

(Scanning the schedule.)



#### ATOM (cont.)

Ε.

(ATOM rips the schedule off the particle board. They hand the schedule to QUARK.)

#### 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 departs.)

(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.)

CUTTHROAT.

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

ACA- DAMN

ME. UP.

(Kneeling. She sensitively picks up the tacks.)



#### **QUARK** (cont.)

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,

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.)

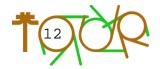
MAY NOT GET TO KNOW, BUT IT'LL FLOW, EXPLANATIONS. CAN'T WAIT FOR BOSON. WHAT'S IN CORE? HOW'S HIS WORKLOAD?

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.)

#### 3. TORSION

(ЛЕПТОН strolls in.)



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(QUARK collides into ЛЕПТОН.)
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(ЛЕПТОН twists herself into a pretzel.)

ЛЕПТОН

ДЕРЬМО (der'mo). TORSION.

(QUARK helps ЛЕПТОН up.)

TWISTED CYKA (súka).

QUARK

MEAN FREE PATH. MEANT NO HARM.

ЛЕПТОН

WHY THE RUSHING?

(QUARK tries to flee.)

(ЛЕПТОН grabs ahold of QUARK.)

TAKE COURSE LIGHTLY.

QUARK

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

(ЛЕПТОН releases QUARK.)



#### ЛЕПТОН

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 JETTOH.

(Hurrying off.)

#### 4. 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!

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!



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(QUARK rigidly moves about.)
                     QUARK (cont.)
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 stops.)

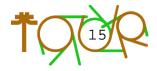
DON'T BLACKMAIL SCEPTICS.

(BOSON enters. He flips the particle board.)

[The particle board displays a field line diagram.]

(QUARK adjusts herself.)

ENTROPIC TIMES THEN CHAOS. PUT WORK AS YOUR PRIME.



#### QUARK (cont.)

UNIT IS ALWAYS TIME. A DEGRADATION,
'LECTROSTATICS CLASS.

AVOID THAT COLLISION COURSE.

COLLAPSE THROUGH SYNERGY. ENERGIZE POTENTIAL.

#### 5. TACHYON

(QUARK, ATOM, and STUDENTs gather around BOSON and prepare for the lecture.)

(BOSON paces.)

[An explosion audibly rings.]

(QUARK solely hears the explosion.)

#### STUDENT

NEUTRONS!

(BOSON dismisses the answer.)

STUDENT

PHONONS!

(BOSON dismisses the answer.)

STUDENT

MUONS!



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(BOSON dismisses the answer.)
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#### STUDENT

BOSON?

(BOSON seems taken off guard.)

ATOM

BORONS ... THEORY!

(STUDENTs ponder.)

THAT'S IT!

#### STUDENTS

(Hysterically laughing.)

(BOSON feels disappointed.)

(QUARK sticks out.)

(STUDENTs ponder.)

QUARK

POSITIVE. NEGATIVE.

BOSON

TOUR.



#### BOSON

STUDENTS

LET IT FLOW.

DO BUILD YOUR NEST.

DO THEY ATTRACT

ATTENTION

'LECTRICITY!
WITH 'LECTRONICS!
SO MAGNETIC!

QUARK

STUDENTS

YOU WOULD LET ME
BUILD MYSELF IN YOUR
LABORATORY?

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.)

#### STUDENT

(Pointing a magnet to another STUDENT.)
COMPASS FACES...

#### STUDENTS

ATTRACTION HERE!

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



#### STUDENT

YOUR FRIDGE RUNNING?

STUDENTS

HA, CAUSE MAGNETS!

ATOM

(Reaching for another STUDENT.)

YOU SEE, MAGNATE.

STUDENTS

STILL THE BORON!

(BOSON takes two magnets. He extends one to  ${\it QUARK.}$ )

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.)

(JENTOH passes the experiment. She appears enjoyably disheveled.)

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

(Their experiment concludes.)

#### 5a. 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.

(BOSON remains silent.)

PROFESSOR'S SPEECHLESS. THINK IT OVER!

(BOSON waves STUDENTs off.)



#### STUDENTS

WE WILL REPEL!

(Departing.)

#### 6. NUCLIDE

(QUARK heads over to the desk. She begins writing a thesis.)

#### MOTA

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.)

#### BORON

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.)

#### MOTA

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.

(QUARK finishes the thesis. She heads to BOSON.)

YOU ONCE THEORETICALLY DID AND NOW WHAT'S LEFT IS TO DEAL WITH THIS NUCLIDE?

(Focusing on QUARK.)

#### 7. ENTANGLEMENT

(QUARK unveils and gifts the thesis to BOSON.)

#### BOSON

(Reading the thesis.)

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

(Motioning towards himself. He is in the mood to tango.)

IN NO TIME.

ARE YOU INTO QUANTUM ENTANGLEMENT?
STILL MAGNETIC EXCITATION TO BE FOUND.
YOU GIVEN PICKING UP PHOTONS FOR A CHANCE?



#### BOSON (cont.)

A COUPLED QUBITS? 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 ME AS RAW AND RESOURCEFUL.
MAGNET-FOCUSED AND COME ON PARTICLE BOARD.

(Attaching 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.

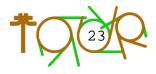
(Shrugging off.)

VACUUM, THERE'S NOTHING TO PROVE-

(Switching topics.)

'VIDE THAT STEM GRANTS FOR YOU. 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.)

BOSON (cont.)

FIELD THEORIES PROPOSED, WILL YOU

(Opening the box, revealing a magnet.)

QUANTUM ENTANGLE ME?

#### 8. CROSSING FIELD LINES

(QUARK may express mixed feelings.)

#### 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.)

I CROSSED?

(Crossing the line.)

BOSON (cont.) 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. (BOSON retreats to the desk.) END TOUR. END TOUR. END TOUR. END OUR... END OUR TOUR. END OUR TOUR. QUARK

I KNOW THIS IS SO RANDOM BUT ... (Motioning to herself.) I AM QUITE... 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.)

#### 9. 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.

OUANTA.

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



#### BOSON (cont.)

CROSS.

 ${\it OLIGOMERS}\,,$  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.)

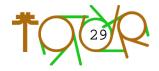


#### RESEARCH ASSISTANTS (cont.)

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.)

10. G

(ATOM and PROFESSORs wander in. They unroll the diploma. They pick up and read the packets. They discard the diploma.)

#### MOTA

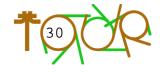
GRADES DO NOT FIT THE CURVATURE, QUARK.

#### **PROFESSOR**

I Q IS LEFT TO BE TRULY DESIRED.

#### ATOM/PROFESSOR

SUCCESS IS THAT, NOT WITHIN YOUR VERY REACH.



#### ATOM/PROFESSOR

B'S STAY IN TRASH BINS OF HISTORY.

#### ATOM/PROFESSOR

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

#### ATOM/PROFESSOR

WHAT THE F'S, DO ATTEMPT QUANTUM SUICIDE.

(QUARK sits up.)

ATOM

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.)

(ЛЕПТОН rushes in.)

#### ЛЕПТОН

БЛИН (blin).

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

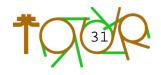
(Noticing QUARK.)

WHAT A STRANGE DAY TO SELECT DOCTORATE CANDIDATES.

(Heading to QUARK.)

CHARMING MATTERS WITHIN YOU.

FAMILIARITY.



(ЛЕПТОН recognizes QUARK.)

**ЛЕПТОН** (cont.)

YOU MADE ME MISS IT!

(Raising QUARK.)

YOU SAVED ME THE TROUBLE OF HAVING MISSED OUT ON AN ATOM SMASHING ACCIDENT.

(Embracing QUARK.)

(ATOM motions for JETTOH to not disclose that information.)

ATOM

AFFLICT.

ATOM PROFESSORs

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

ЛЕПТОН ATOM PROFESSORS

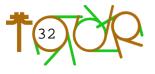
I KNOW G-FORCE BEING YOU'LL KNOW G-FORCE.

ATOM/PROFESSOR

A FORMER DOCTORAL A BURDEN SO PECULIAR. CANDIDATE. WEAK.

ATOM/PROFESSOR

PUPIL BRINGS LONG DAYS, SHORT NIGHTS, ATOMIC WEEKS.



#### **ЛЕПТОН** (cont.)

#### ATOM/PROFESSOR

EQUATIONS, UNFIT SO YOU HAVE TO TWEAK.

PHYSICS, CLASSIC, QUANTUM, BASIC, NEVER SLEEP.

> (ЛЕПТОН takes the packet from ATOM. She reads the packet.)

#### ЛЕПТОН

AT THE VERY LEAST, SHE HAS PRINCIPLED HALF SPINS!

MOTA **PROFESSORS** 

SPIN IT. FLUX, GIVEN NONE.

#### **PROFESSOR**

HER VARIABLE IS JUST A MASS.

ЛЕПТОН MOTA

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

THAT THERE'S LOTS TO SURPASS.

**PROFESSOR** 

METHODS, NONE INTEGRAL ITS ANGLING FOR.

(JETTOH returns the packet to ATOM.)

MOTA

GRAVITY.

#### ЛЕПТОН

#### PROFESSORs

FELT I FORCE THESE G'S.

FORCE YOU'LL FEEL ARE G'S.

(ЛЕПТОН takes QUARK out for a spin.)

(QUARK flounders around.)

(ATOM and PROFESSORs humbly depart.)

#### ЛЕПТОН

YOU SURE NEED SOME ANGULAR MOMENTUM IN YOU. IDEALLY, COMMIT TO OCCUPY THIS STATE.

(QUARK seems hesitant.)

MATTERS THAT ARE PARTICLES WITHIN YOU.

ATOM PROFESSORS

OCCUPY STATE!

#### ЛЕПТОН

NAME?

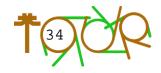
(QUARK whispers into ЛЕПТОН's ear.)

QUARK?

SEEMS TO HAVE A LACK OF SPIN.

FIRM.

I AM IN ANY CIRCLES, ORBITALS.



#### **ЛЕПТОН** (cont.)

APYF (drug).
YOU'RE A FORCE TO BE WEIGHTED UPON THEE!

(Stopping the momentum.)
STATE. HAVE TO SPIN TO!

(Spinning off.)

#### 11. 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: JEHTOH.

A NON-ABELIAN...

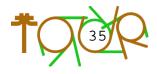
I CAN'T TIE UP THIS QUANTUM KNOT.

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.



# 12. VALENCE

(STUDENTs wander about.)

STUDENTS

IT'S HIGHER ENERGY LEVEL. THIS HIGHER EDUCATION

HAUL.

IT'S HIGHER ENERGY LEVEL. THIS HIGHER EDUCATION

HAUL.

(JENTOH trudges in, carrying 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.

ЛЕПТОН

ALARM, INFREQUEN-

STUDENTS

THIS EMISSION LEADS TO GROUND STATE.

THAT ADMISSION LEAVES

YA GROUNDED.

(ЛЕПТОН hands a paper to QUARK.)

ЛЕПТОН

SEE

STUDENTS

WHO IS THIS EDUCATED SPOIL?

WHAT A LOW ENERGY

LEVEL.

ЛЕПТОН

TO INTEGRATION.

STUDENTS

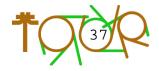
WHO IS THIS EDUCATED

WHAT A LOW ENERGY

SPOIL?

LEVEL.

( $\mbox{\it JE\Pi TOH dumps}$  the paperwork into  $\mbox{\it QUARK's}$  arms.)



# ЛЕПТОН

D'RIVE ON.

STUDENTS

WHO IS THIS EDUCATED SPOIL?

WHAT A LOW ENERGY

LEVEL.

(QUARK demonstrably questions the content of the paperwork.)

ЛЕПТОН

POSTULATE. A POS-THINK SPHERE.

STUDENTS

WHO IS THIS EDUCATED

WHAT A LOW ENERGY

SPOIL?

LEVEL.

QUARK

CHECK VALIDITY.

STUDENTS

JUMP UP THOSE ENERGY

LEVELS!

BUMP OUT SOME ENDLESS

CREDENTIALS!

(ЛЕПТОН eyes STUDENTs.)

QUARK

STUDENTS

ASSUME MY MOTIVE.

MOTIVATION.

MAKE ASSUMPTIONS.

FIRST ORDER NOTED.



# **STUDENTS** (cont.)

NATURAL EQUATIONS. DIRECT NOTATIONS.

(QUARK disorderly eyes STUDENTs.)

QUARK (cont.)

**STUDENTS** (cont.)

FRESH SCHOLARS UNVEILED.

FRESH GENERATIONS. INFORMATION.

SURVEILLANCE.

OBSERVATION.

SERVE VALENCE.

SHELLED ELECTRONS!

ЛЕПТОН

TEACHING ASSISTANT.

STUDENTS

WE HAVE AN IMPORTANT QUESTION.

ЛЕПТОН

THESE STUDENTS

STUDENTS

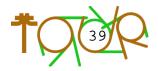
WE HAVE AN IMPORTANT QUESTION.

ЛЕПТОН

SUCK ENERGY

STUDENTS

WE HAVE AN IMPORTANT QUESTION.



# ЛЕПТОН

OUT OF YOU.

# STUDENTS

WE HAVE AN IMPORTANT QUESTION.

QUARK

STUDENTS

STATE, I'M FAMILIAR.

THIS MIGHT BE A STUPID QUESTION.

(QUARK coalesces STUDENTs.)

QUARK

CONVECTION, IT'S CHILL.

STUDENTS

GEE PROFESSOR ЛЕПТОН

QUARK. QUARK.

ЛЕПТОН.

QUARK

OPTICAL, LOOKS GOOD.

STUDENTS

GEE PROFESSOR ЛЕПТОН

QUARK. QUARK.

ЛЕПТОН.

QUARK

BASICALLY, I'M HIP.



### STUDENTS

GEE PROFESSOR ЛЕПТОН ЛЕПТОН.

QUARK. QUARK.

QUARK

I'LL ADDRESS ALL QUESTIONS!

STUDENTS

GEE PROFESSOR JEПТОН JEПТОН.

QUARK. QUARK.

ЛЕПТОН

SO FAILING. ASK IF

STUDENTS

THANK YOU, QUARK E! THANK YOU, QUARK E!

NO THANKS TO YOU, ЛЕПТОН ЛЕПТОН.

ЛЕПТОН

QUESTIONS 'RISE BRIEFLY

STUDENTS

THANK YOU, QUARK E! THANK YOU, QUARK E!

NO THANKS TO YOU, JETTOH JETTOH.

ЛЕПТОН

THEN YOU SNUB. NO



### STUDENTS

THANK YOU, QUARK E!
THANK YOU, QUARK E!

NO THANKS TO YOU, JETTOH JETTOH.

ЛЕПТОН

NEED VALIDATION.

#### STUDENTS

THANK YOU, QUARK E! THANK YOU, QUARK E! NO THANKS TO YOU, JETTOH JETTOH.

(Becoming rigid.)

(ATOM struts in.)

### ATOM

### STUDENTS

STEAL 'LECTRICITY. I'LL SURVEIL HERE. HIGHER LEVEL. HOW'S THAT GOING? EXACTLY WHAT IS SPIN? QUARK E?

### QUARK

(Flabbergastingly answering.)

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

#### ATOM

#### STUDENTS

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

EXACTLY WHAT IS SPIN? T A?



# QUARK

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

ATOM STUDENTS

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

EXACTLY WHAT IS SPIN? TEACHER?

#### QUARK

SPACETIME FABRICATION BRINGS ABOUT LIMITATIONS, SO LET'S

ATOM STUDENTS

YOU CAN'T SPIN US. WHAT DO YOU HAVE IN YOU CAN'T SPIN US. CORE FOR US?
YOU CAN'T SPIN US.

(QUARK herds STUDENTs together.)

# QUARK

MOVE TO STATE FORMATION, MIXED VALENCE WITHIN FEMTOSECONDS, HEAR

ATOM STUDENTS

YOU CAN'T SPIN US. WHAT DO YOU HAVE IN YOU CAN'T SPIN US. ACCORDANCE?
YOU CAN'T SPIN US.

# QUARK

THAT, YOU QUASI-BORONS? AN EXAMINATION FILLED



ATOM STUDENTS

YOU CAN'T SPIN US. WHAT DO YOU HAVE
YOU CAN'T SPIN US. THAT'LL SHOCK OUR
YOU CAN'T SPIN US. CORE?

(QUARK hands out the scantrons to STUDENTs.)

### QUARK

WITH HOLES IN SCANTRONS.

YOU CAN'T SPIN US.

ATOM STUDENTS

YOU CAN'T SPIN US. WHAT DO YOU EXPECT YOU CAN'T SPIN US. FROM NUCLEI?
IN THEORY THOUGH,
PLEASE SHARE WITH US.

(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.

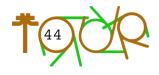
ATOM STUDENTS

PLEASE SHARE WITH US. WILL THIS MOMENTUM BE.
PLEASE SHARE WITH US. CURVED?
PLEASE SHARE WITH US.
PLEASE SHARE WITH US. FAILURE?

# QUARK

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

(Grabbing ahold of ATOM.)



ATOM STUDENTS

WILL THIS MOMENTUM BE

CURVED?

VALENCE?

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

I SERVE VALENCE.

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

ENERGIES FOR CONTRIBUTION. CONTRIBUTION. THE VALENCE!

(ATOM passes around the cheat sheets.)

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

(ЛЕПТОН holds back QUARK.)

ЛЕПТОН

THEY'LL GET ELECTRONS.

(STUDENTs pass around scantrons.)

STUDENTS

DISTRIBUTION OF THE SCANTRONS.

ЛЕПТОН

THEY'LL GROUP THE ELEMENTS.

(STUDENTs group together.)



### STUDENTS

NODES, ORBITALS. NEUTRAL CIRCLES. NODES, ORBITALS. NEUTRAL CIRCLES.

ЛЕПТОН

THEY'LL CONFIGURATE.

(STUDENTs form circles.)

STUDENTS

NODES, ORBITALS. NEUTRAL CIRCLES. NODES, ORBITALS. NEUTRAL CIRCLES.

ЛЕПТОН

THEY'LL COME OUT THEIR SHELLS.

(STUDENTs move from one circle to another.)

STUDENTS

NODES, ORBITALS.

NODES, ORBITALS.

NEUTRAL CIRCLES.

NEUTRAL CIRCLES.

ЛЕПТОН

THEY'LL FIND OUT THEY'RE VALIANT.

(STUDENTs orbit either  $\Pi$ E $\Pi$ TOH and QUARK, and/or ATOM.)

STUDENTS

NODES, ORBITALS. NEUTRAL CIRCLES. NODES, ORBITALS. NEUTRAL CIRCLES.



### ЛЕПТОН STUDENTS

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

MOTIVATION.

MAKE ASSUMPTIONS.

NATURAL EQUATIONS.

DIRECT NOTATIONS.

GENERATIONS.

INFORMATION.

OBSERVATION.

SHELLED ELECTRONS!

(QUARK openly dismisses ЛЕПТОН.)

(JENTOH motions STUDENTs to turn in their papers to QUARK.)

#### ЛЕПТОН

DON'T TAKE IT.

### STUDENTS

VALENCE ELECTRONS.

VALIDATION.

(STUDENTs hand the papers to QUARK.)

(QUARK snubs STUDENTS.)

#### STUDENTS

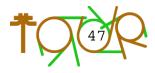
VALENCE ELECTRONS.

VALIDATION.

### ЛЕПТОН

WRONG ENERGY LEVEL.

(Gathering all the papers from STUDENTs.)



# STUDENTS

	ELECTRONS.		VALIDATION. VALIDATION.
		лептон	
VALIDITY	7.		
		STUDENTS	
VALENCE	ELECTRONS.		VALIDATION.
		ЛЕПТОН	
THERE'S			
VALENCE	ELECTRONS.	STUDENTS	VALIDATION.
NO NEED	SEARCHING	ЛЕПТОН	
		STUDENTS	
	ELECTRONS.		VALIDATION. VALIDATION.
VALIDITY	<i>.</i>	ЛЕПТОН	
		STUDENTS	

VALIDATION.

VALENCE ELECTRONS.



# ЛЕПТОН

THE HEART

STUDENTS

VALENCE ELECTRONS.

VALIDATION.

ЛЕПТОН

OF PHYSICS

STUDENTS

VALENCE ELECTRONS.

VALIDATION.

ЛЕПТОН

PUMPS

STUDENTS

VALENCE ELECTRONS.

VALIDATION.

ЛЕПТОН

VALIDITY.

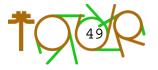
STUDENTS

VALENCE ELECTRONS.

VALIDATION.

ЛЕПТОН

NEED



### STUDENTS

VALENCE ELECTRONS.

VALIDATION.

### ЛЕПТОН

NO VALIDATION.

(Dumping the paperwork into QUARK's arms.)

### STUDENTS

VALENCE ELECTRONS. VALENCE ELECTRONS. JUMP! VALIDATION.
VALIDATION.
BUMP!

(ЛЕПТОН departs.)

(STUDENTs orbit away.)

### 13. 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.



# QUARK (cont.)

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.

JUST GO EFFUSION.

I SWEAR TO EFFUSION.

YOU ALL CAN EFFUSION IT!

(Preparing for a journey.)



### 14. SUPER COLLIDE

# SCENE ii

[Desertron]

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

#### ЛЕПТОН

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.

(ЛЕПТОН wanders off.)

END UP WITH DESERTS.

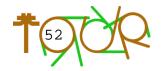
(Noticing JETTOH's disappearance.)

NOT THE COURSE TO DESERT THIS DOCTORATE!

(Motioning towards herself.)

WELL, THERE IT GOES. MY CONCLUSION.

EGO'S NEVER HYPERSENSITIVE. THIS MIND STAYS DEHYDRATED.



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

#### ЛЕПТОН

HYPOTHESIS THAT THIS
HEARTLAND OF
INNOVATION BRINGS FREE
ENERGY. WHERE NOT JUST
MATTER 'XISTS, 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 THEORIZE...

(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.

SUPER COLLIDE.

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. FERMIONS. MUONS. 'TRINOS. GLUONS. CHARM.			
QUARK			TECHNICIANS
QUANTA.		RAYS!	
	QUARK		
(Feeling matters.)			
'NERGY BUNDLES.			
QUARK			TECHNICIANS
STANDARD		FORCE	!
	QUARK		
MODEL.			
(Growing antsy.)			
THEORIZED			
QUARK			TECHNICIANS
'NOUGH.		NOWT.	
(QUARK deactivates	the cont	rol.)	



(TECHNICIANs collide with one another.)

#### **TECHNICIANS**

OUARK! JUST GOT YOURSELF ROLLING!

SPIN PARTICLES AT HOME.

GET PARTICLES IN TUBE. SAY HI TO 'LECTRONS.

PASS BY NICE PROTONS.

SAI III IO DECIROI

STEER MAGNETIC FIELDS.

FEEL THE ENERGY.

REACH THE SPEED OF LIGHT.

LIGHTEN UP, WILL YA?

### ЛЕПТОН

COL-

(TECHNICIANs collide and gather.)

#### **TECHNICIANS**

'LIDE!

SCIENTISTS, BUILDERS, PLAYERS, FRIENDS, AND

FAMILY ALL

GATHER HERE THERE AROUND HUMAN'S GREATEST

FEAT

UNDER.

EVER.

# ЛЕПТОН

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.)



# ЛЕПТОН TECHNICIANS

AT DESERTRON. ENERGY, CAN YOU FEEL

IT, GAIN THE MAGNET!

QUARK

SUPERNATURAL. REACH THE SPEED OF

ЛЕПТОН

CONDUCT YOURSELF. LIGHT!

QUARK

SUPERVISION. ANTI-QUARK MATTERS

ЛЕПТОН

COLLIDE OTHERS. SUPER COL-

(Setting QUARK on a collision course.)

'LIDE!

HER WAY OUT BARYONS! SUPER COLLIDE BEYOND! SUPERCONDUCTIVITY MEDIUM

MODELLED!

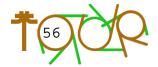
SMASH THE PARTICLES TOGETHER FOR ENTIRE WORLD RECORD AROUND FORTY TERA 'LECTRON VOLTS!

(Gathering around the control.)

GOD PARTICLE BURIED RIGHT UNDER THE DESERTRON.

(Expanding.)

QUADRUPOLE LIGHTEN UP THE MOMENT. SUPER COLLIDER!



# 14a. SUPER COLLIDE (reprise)

(TECHNICIANs exit.)

### ЛЕПТОН

QUARK.

SUPER

CONDUCT YOURSELF, CANDIDATE.

JOE

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

(Departing.)

### 15. PARTICULATE

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

(ATOM frantically rushes in.)

# ATOM

AM I TOO LATE?

(Noticing 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.

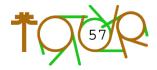
(Hesitantly accepting QUARK.)

TO ABDICATE, WE MUST NOT.

SATURATE DESERTRON.

I SHALL POSTULATE.

PARTICULARLY AIRY QUARK E.



(OUARK DJs the control.)

[Particles may collide.]

ATOM (cont.)

QUARK... E...

(Readjusting himself.)

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

(TECHNICIANs fill the space.)

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.

### 16. 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?

#### MOTA

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

SLEPTON. SPECTRAL.

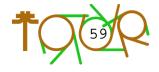
(QUARK feels the nightmares.)

(BOSON brightly returns.)

(ATOM joyfully tears up.)

NON-PHYSICIST HAS DRAWN HERSELF TO DESERTRON.

(Embracing ATOM.)



### BOSON (cont.)

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.)

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.)

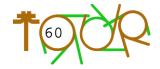
# **POLITICIANS**

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

**POLITICIANS** 

LOST ITS RUN.

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.

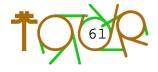
THEIR FUNDS, GO SLOW.

**POLITICIANS** 

A SLEPTON!

(Counting the cash.)

THESE PARTICLES.
THEY'RE PARTLY CHORES.



### **POLITICIANs** (cont.)

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.

I WILL OUTCLASS, NOWT TO COMMIT.

ART, ALSO MAKES THE WORLD

QUARK

**POLITICIANS** 

SICK!

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

(TECHNICIANs rush in to collide with one another.)

(POLITICIANS shove TECHNICIANS out of the space.)

### BOSON

ALREADY HAVE IT ALL AT THE ACCELERATOR.

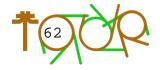
QUARK

MORE.

(Directing out.)

**POLITICIANS** 

OPEN...



### BOSON

DESERTRON'S CONDUCT SHOULD HAVE LEFT YOU SUPER FLOORED.

QUARK

POLITICIANS

EXPLORED PARTICLES!

DOORS.

### BOSON

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

QUARK

POLITICIANS

ATOMIC MATTERS!

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

(ATOM stirs.)

BOSON

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

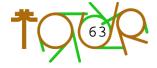
**POLITICIANS** 

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 POLITICIANS

TICKED!

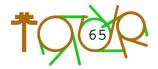
ATOMIC.
CREATION.
BIRTHS NEW LIFE.
DON'T SELL OUT TO
DESTRUCTION!



BOSON
YOU HAVE THE POTENTIAL, JUST NEED A LITTLE FORCE
(Presenting nominal cash.)
QUARK
DROP
POLITICIANS
FUNCTION
r diver roll
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!

(Tearing 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.)
'NERGIES, RUN FREE.

# **POLITICIANs**

SLEEP IT OFF! SCIENCE DON'T NEED FUNDS!

(QUARK weeps.)



### **POLITICIANS**

CRY AWAY.
PHYSICS GONE!

PHYSICS DEAD!

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!

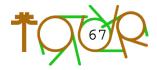
(BOSON, ATOM, and POLITICIANs huddle around in the nuclear winter.)

16a. SLEPTON (reprise)

(ATOM and POLITCIANs depart.)

BOSON

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



(QUARK recognizes the persona of JETTOH.)

(BOSON reminisces.)

BOSON (cont.)

GOURMETS, DESERTRON.

(Pushing away QUARK.)

NOW STRAY, SLEPT ON.

(Vacating.)

(QUARK reclusively perches.)

### 17. BACKSCATTER

(ЛЕПТОН eagerly skips in.)

### ЛЕПТОН

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

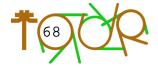
(QUARK remains silent.)

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 ЛЕПТОН

BACKSCATTER!

SO UPFRONT.

(ЛЕПТОН looks around the void.)

#### ЛЕПТОН

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!

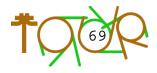
(Holding QUARK's hands.)

(QUARK pushes away ЛЕПТОН.)

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.



# QUARK (cont.)

LEAVE ME MORE LESS ISOTROPIC IN RANDOM DIRECTIONS.

QUARK JEПТОН

BACKSCATTER!

GOT YOUR BACK.

(ЛЕПТОН leaves.)

QUARK

HEART SHATTERED.



### 18. ELECTROFORM

# SCENE iii

[Magnet Factory]

(ATOM and TECHNICIANs march in, carrying a desk and supplying metals. They set down the desk.)

#### **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.

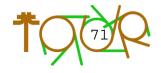
ELECT ME FORMALLY FOR I AM YOUR ALLY.
IT IS REFORMATION FOR MATTERS WITHIN US.

(Leveling with QUARK.)

ATOM SHALL FORMULATE AN EXPERIMENT TO FIELD PROPOSALS.

#### **TECHNICIANS**

TEST THE WATER.
THIS DISTILLATION.
ELECTROFORM.



## TECHNICIANS (cont.)

JOIN THIS CIRCUIT.
MAGNET FACTORY.
ELECTRO- REBORN.

(Hypnotically moving around QUARK.)

## ATOM

#### **TECHNICIANS**

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.

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**

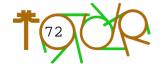
ATOM HAS FORMED THIS PACT FOR ALL US LITTLE GUYS. ATOM WAS FORMERLY CONSIDERING BOSON. ATOM CHOSE FORMALISTS AND PERSISTS LEADING MAGNET FACTORY.

(Building magnets.)

# QUARK

ELECTROLYTES. ELECTRO-TRAP.

(Steering away from the desk.)



## **TECHNICIANS**

NONCONDUCTIVE?
DO NOT COPPER OUT.
ELECTROFORM.

(Coalescing.)

ALL THAT ARE LEFT.

POSITIVELY CHARGED.

ELECTRO- WE'RE TORN.

(ATOM hands magnets to QUARK.)

## ATOM

THE SOLUTION,
THEY PRECIPITATE
AND CRYSTALLISE.
YOU ARE SOLID.
YOU ARE GOOD TO GO.
YOU'LL REALIZE YOU'RE FORMED.

(QUARK churns the magnets in her hand.)

# **TECHNICIANS**

SHE IS JUST A DOCTORAL ADVISOR'S LOST PET.
WE BET SHE CAN'T FIND HER PLATES AND IRON THINGS OUT.
RANDOMNESS AS CORROSIVE AS THEY COME TO MAGNET FACTORY.

#### MOTA

ANODES ARE KEY TO ELECTROFORM SOLUTIONS.
REWIRE OURSELVES AWAY FROM THESE OLD FORMULAS.
QUARK AND ATOM CAN SHAKE THINGS UP CAUSE AFTER ALL,
YOU JUST FOMENT.

(TECHNICIANs move in formation.)



## **TECHNICIANS**

ANODES ARE KEY TO ELECTROFORM SOLUTIONS.

REWIRE OURSELVES AWAY FROM THESE OLD FORMULAS.

QUARK AND ATOM CAN SHAKE THINGS UP CAUSE AFTER ALL,

MAGNET MOMENTS.

(QUARK garnishes the magnets with her hands.)

ATOM TECHNICIANS

ELEMENTARY. ELECTOFORMATIONS STANDARD MODEL. MAGNETIC COTERIE.

KEEP IT UP, QUARK. ELECTROFORMIDABLE DOWN-TO-WORLD QUARK. THEORIZED CONNECTIONS.

CHARMING FELLOW. ELECTROFORMULIZE
'TWAS STRANGE ROOKIE. ORBITALS TO BRING
ON TOP OF THINGS. ABOUT
DON'T BOTTOM OUT NOW. INTRODUCTIONS.

(QUARK justly tears apart the magnets.)

(The poles in TECHNICIANS' formations flip. They cross each other. They zigzag.)

#### **TECHNICIANS**

QUANTUM TUNNELLING IS HERE.

# MOTA

TUNNELLED ELECTRODES.

## **TECHNICIANS**

CAN'T DIG OUT OF THIS, ATOM.



## MOTA

DETRIMENTAL HEAT.

## **TECHNICIANS**

THERE IS NOTHING TO WELDING.

ATOM

BRAZING WEAKENED PIECE.

#### **TECHNICIANS**

DISSIMILIAR ALLOYS.

(Pointing to either QUARK or ATOM.)

# ATOM

SUPERIOR BONDS.

ATOM TECHNICIANS

ELECTROFORM. ELECTROPLATING

ELECTROFORM. IS ALL.

ELECTROFORM. SETTLE FOR LESS.

ELECTROFORM.

ELECTROFORM. YOU CAN'T COAT ALL

ELECTROFORM. THESE FACTORS. ELECTROFORM. DON'T GET BROKEN

ELECTROFORM. DOWN.

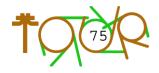
# QUARK

MATTER THAT MAKES THE WORLD

(Motioning towards herself.)

TO MATTER THAT MAKES THE WORLD

(Motioning towards ATOM.)



# QUARK (cont.)

NOW ASKS YOU TO JOIN ME IN MAGNETIC MOMENT.

(Extending her hand to ATOM.)

(TECHNICIANs contract and detract.)

#### **TECHNICIANS**

CAN'T CONFORM.
YOU'RE DEFORMED.

## ATOM

MAGNETIC MOMENT, QUARK?
YOU HAVE ALWAYS MADE IT.

(Descending.)

I'VE DONE NOTHING TO STRENGTHEN. THE WORLD'S NOT MY PLACE.

(Instantly ascending.)

## ATOM

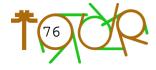
# **TECHNICIANS**

I'M HOPING TO HAVE	A	ELECTROPLATE.
LOT ON MY PLATE.		ELECTROPLATE.
THIS IS YOUR FEAST	TO	ELECTROPLATE.
EAT.		ELECTROPLATE.

(TECHNICIANs encircle QUARK.)

I'M FINISHED WITH ALL ELECTROPLATE.
THESE MAGNETS ELECTROPLATE.
AND ALL OF ITS ELECTROPLATE.
FACTORY. ELECTROPLATE.

(ATOM yields.)



## ATOM (cont.)

# TECHNICIANS (cont.)

I WILL TAKE THAT JOB

OFFERED

UP BY BOSON

ELECTRODEPOSITION.

STAY CONDUCTIVE, QUARK.

ELECTROFORM.
ELECTROFORM.
ELECTROFORM.
ELECTROFORM.

ELECTROFORM.

ELECTROFORM.

ELECTROFOAMING.

(Melding away.)

## 19. ANTIMATTER

(QUARK detects the emptiness.)

#### QUARK

NOTHING EVER MATTERS.

ONE NEEDS TO CANCEL OUT.

I DON'T EVER MATTER.

NEGATIVE BALANCE.

I NEED ANTIMATTER.

SCATTERED ANTIMATTER.

YOU ARE NEVER MATTER.

ANECDOTAL BASE

IS OF MY EXISTENCE, COLOUR, BE LEFT UNDETECTED?

(Heading to the magnets littering the ground. She hesitantly picks up the magnets. She returns to the desk.)

ARE MY FUNDAMENTAL PRINCIPLES TO BRING GRAVITATION? A DIRE SITUATION BASED ON STRONG, WEAK INTERACTIONS?

(Observing the magnets. She puts together a single magnet. She stows away the magnet near her.)

I NEED ANTIMATTER.

I SCRAPPED VALIDATION.

YOU HAVE ALWAYS MATTERED.

NEUTRINOS, PARTNER.



(OUARK rests her head on the desk.)

## 20. PREON

(ЛЕПТОН tiptoes in.)

#### ЛЕПТОН

YOU HAVE REACHED THE MASS POINT.
PRINCIPLE OF UNCERTAINTY.
COLLECT YOUR PARADOX.
SCATTER YOUR PLOTS.

(Organizing QUARK's space.)

КАНДИДАТ НАУК (kandidat nauk)? WHAT'S IT THAT YOU FEAR? OH.

(Rolling QUARK over. She notices the magnet.)

THESE ATTRACTING MAGNETS REPEL YOUR SPIRIT, WERE IN PARTICLES.
I WILL PRAY ON.

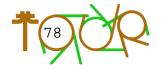
(QUARK riles herself up.)

# QUARK

MY MODEL HAS ITS STANDARDS. I'LL NOT CONFLATE
POINTLIKE PARTICLES LIKE THESE DIPOLES IN
MAGNETIZATION. MY ELEMENTARY MINDSET KNOWS PSEUDO
PHYSICS. I'M PART FRAUD. THIS IS THE END, THIS
EXPERIMENT. MY BEING CANNOT TAKE THIS. DON'T HAVE THE
PHYSICS. MY BRAIN WAVES TRANSVERSED.

(ЛЕПТОН looks through the desk.)

DYING BY POLARIZATION. MY 'XISTENCE ONLY REPELS.



( $\Pi E \Pi T O H$  pulls out a lightbulb and wires. She separates the magnets.)

# QUARK (cont.)

I REALLY DON'T KNOW HOW YOU FIND POINTLESS MATTERS SO SENTIMENTAL.

(JIEПТОН performs the experiment.)

#### ЛЕПТОН

I'M MENTAL, SPEAKING YOUR LANGUAGE. JUST TRYING OUR CLASSIC PROJECTS. POINT PARTICLE'S HYPOTHESIS. POINT OF YOUR LIFE'S TO THEORIZE, PERHAPS PREON? JUST HAVE A BELIEF. POSITRON TO 'LECTRON, DON'T BE ANTIMATTER ON ME NOW. JUST LIGHTEN UP, BE BRIGHTER COMRADE.

# QUARK

TRY TO INITIATE CONDUCTION.
MY TEMPERAMENT'S TO BE SHUNNED.
PASSION'S NOT FOR SIMPLETONS.

## ЛЕПТОН

PREON.

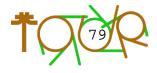
(QUARK takes over the experiment.)

# QUARK

STELLAR USAGE OF PREON.
BUT THERE'S NO FAITH IN PREON.
NOT A MATTER THAT'S PREON.

(Finishing the experiment.)

ИДИ ТЫ В БАНЮ (idi v'banyu)!



# ЛЕПТОН

IT'S YOU WHO NEEDS TO GET LOST. LET ME LIVE IN PARADOX. PUPIL, GO ON. QUIT...

(QUARK slides the magnets towards the light bulb.)

[The light bulb lights up.]

BEING A ХУЙ (hooy). QUARK, Р H D.

QUARK ЛЕПТОН

PRAISE BE.

PREON.

[The space brightens.]

(QUARK intimately hold her gaze.)

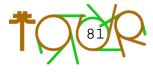
(ЛЕПТОН anxiously meets QUARK's gaze.)

(QUARK distances the magnets away from the light bulb.)

[Blackout.]

End of Act





# 21. MOLE

[Accelerator]

(QUARK wanders in. She pops around.)

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

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

(ATOM tardily arrives. They eye QUARK.)

(QUARK wins the staredown with ATOM.)

# 22. ELEMENTARY PARTICLE

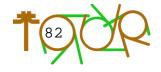
(ATOM progressively smiles.)

# 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

OF NEGATIVITY, 'LECTRIC LIKE,

IT HERE?

POLARITY BEYOND YOUR MAGNET FACTORY.

(ATOM is taken aback.)



QUARK ATOM

 ${\tt I'LL \ HIT \ ATOMIC}$ 

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-

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.)

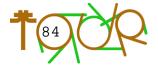
I'M JUST BEING

RANDOM.

IT'S REALLY HARD TO NOT INFLUENCE

YOUR FIELD.

I'M FUNDAMENTAL.



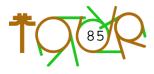
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(QUARK twirls her finger around her head.)
```

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QUARK (cont.)
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.
     (ЛЕПТОН enters. She happily addresses ATOM.)
THE STANDARD MODEL.
     (ATOM pushes ЛЕПТОН into QUARK.)
     (ЛЕПТОН collides into QUARK. She falls with
     QUARK.)
                          ATOM
ACCELERATOR.
```

QUARK

EXCELLENCE.

(Directing out.)



# ATOM

QUARK, JETTOH, BOSON.

QUARK

NOTHING BUT ...

ATOM

ELEMENTARY.

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

QUARK

THAT IS ME.

ATOM

QUARK, JETTOH, BOSON.

QUARK

NOTHING BUT ...

ATOM

ELEMENTARY.

TAU, MUON, 'LECTRON.

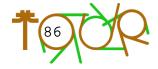
QUARK

ON HER MIND.

(Motioning towards ЛЕПТОН.)

ATOM

QUARK, JETTOH, BOSON.



# **QUARK**

NOTHING BUT ...

ATOM

ELEMENTARY.
GLUON, PHOTON, W, Z, HIGGS.

QUARK

I'M READY.

ATOM

QUARK, JETTOH, BOSON.

QUARK

ALL THINGS ARE...

MOTA

ELEMENTARY PARTS.

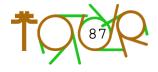
(Leaving.)

# 23. BRING THE CONDUCTIVITY

(ЛЕПТОН helps QUARK up.)

# ЛЕПТОН

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.

ЛЕПТОН

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!

, 1111 00112001111111

(Moving about.)

# 24. 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.)



# BOSON (cont.)

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—

#### ЛЕПТОН

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

(Coming between QUARK and BOSON.)

(BOSON loses his footing.)

## BOSON

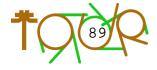
ELEMENTARY...
ELEMENTARY...
ELEMENTARY...
ELEMENTARY...
THAT IS YOU, JEITOH.
YOU SUPERVISOR.
YOU OVERSEER.
YOU ARE A TRAITOR.

(ЛЕПТОН extends her hand to ATOM.)

YOU ARE STILL OUR PRIDE.

(ATOM comes to QUARK's defense.)

(BOSON submits.)



# BOSON (cont.)

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.)

# 25. HADRON

[The tunnel horizontally lies with no end or entrance in sight. The tunnel could fit people on their feet, let alone particles.]

(TECHNICIANs mass charge spin out.)

**TECHNICIANS** 

HADRON ON!

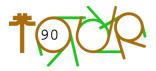
**TECHNICIANS** 

HADRON ON!

TECHNICIAN

ACCELERATE!

(ЛЕПТОН and QUARK run around.)



(BOSON disappointedly heads towards the tunnel.)

(ATOM roam about.)

**TECHNICIAN** 

ACCELERATE!

TECHNICIAN

ACCELERATE!

**TECHNICIAN** 

ACCELERATE!

**TECHNICIAN** 

ACCELERATE!

**TECHNICIAN** 

ACCELERATE!

TECHNICIAN

ACCELERATE!

(TECHNICIANs collide with one another.)

(ЛЕПТОН and QUARK stop by the tunnel.)

ЛЕПТОН

ACCELERATE!

ACCELERATE!

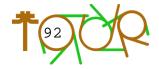


# JETTOH (cont.)

JIEIIT.	OH (cont.)
ACCELERATE! ACCELERATE! ACCELERATE! ACCELERATE!	
(Tapping QUARK.)	
	QUARK
ACCELERATE!	
ЛЕПТОН	TECHNICIANS
ACCELERATE!	
ALL'S ATOM SMASHING!	ATOM
TE LARGE HADRON COLLIDER!	CHNICIAN

TECHNICIAN

LARGE HADRON COLLIDER!



# TECHNICIAN

# LARGE HADRON COLLIDER!

## TECHNICIAN

LARGE HADRON COLLIDER!

ЛЕПТОН

ACCELERATE!

ACCELERATE!

ACCELERATE!

ЛЕПТОН TECHNICIANS

ACCELERATE! HADRON.

ACCELERATE! HADRON.

ACCELERATE! LARGE HADRON.

ACCELERATE!

ACCELERATE!

ATOM

POSITRON? 'LECTRON?

**TECHNICIAN** 

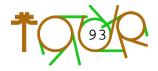
LARGE HADRON COLLIDER!

**TECHNICIAN** 

LARGE HADRON COLLIDER!

**TECHNICIAN** 

LARGE HADRON COLLIDER!



# TECHNICIAN

LARGE HADRON COLLIDER!

TECHNICIAN

LARGE HADRON COLLIDER!

**TECHNICIAN** 

LARGE HADRON COLLIDER!

**TECHNICIAN** 

LARGE HADRON COLLIDER!

QUARK

THIRTY, JENTOH.
'LECTRON VOLTS.
WE CAN SHOOT TWINS.
PROTON BEAMS.

ЛЕПТОН

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

MOTA

THEORIES!

ЛЕПТОН

HADRON ON. HADRON ON. ACCELERATE.



# **TECHNICIANS**

HADRON ON?! ACCELERATE. HADRON ON. ACCELERATE. ACCELERATE. (QUARK, ЛЕПТОН, and TECHNICIANs get closer together.) ACCELERATE. ACCELERATE. ACCELERATE. ACCELERATE. ЛЕПТОН LARGE HARDRON COL-ЛЕПТОН **TECHNICIANS** ACCELERATE LID-TWIN PROTON BEAMS. ING! PARTICLES! (Expanding.) (ЛЕПТОН grabs ahold of ATOM.) (QUARK, ЛЕПТОН, ATOM, and TECHNICIANs clump together.)

# QUARK

WHO MAKES THE UNIVERSE?

JEПТОН ATOM TECHNICIANS

QUARK!

(TECHNICIANs accidently push out ATOM to rally around QUARK.)

## 26. FUSION

(QUARK, ЛЕПТОН, 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.

(Heading to BOSON.)

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.)



# ATOM (cont.)

JUST FUSION.

( $\mbox{\it JE}\Pi\mbox{\it TOH}$  head to BOSON and ATOM. She splits BOSON and ATOM.)

LET US GO NUCLEAR FUSION.

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

## 27. SYNCHROTRON: MAGNET-GUIDED

(BOSON heads to QUARK and TECHNICIANs. He feels both impassioned and displeased.)

# BOSON

WELCOME TO THE ORIENTATION, QUARK...
DON'T TOUCH ANYTHING AT ALL, YOU HEAR ME, YOU SQUARK?

{Overview: BOSON gives QUARK a tour around the Accelerator. QUARK takes control of this tour and makes it known that she knows all the mechanics that this laboratory has to offer. TECHNICIANS grow fond of her.}

# 28. HYPERCHARGE

{Overview: BOSON angrily puts QUARK in hypercharge and believes that the stress of leadership will get to her. JETTOH has evidently grown wary. QUARK easily manages her way through. JETTOH is no longer necessary for QUARK. She is seemingly hurt at being unhelpful and not looked up to by ATOM as QUARK had.}



## 29. ISOSPIN

{Overview: BOSON meets with QUARK to offer anything to get her to quit the Accelerator. JENTOH still comes around to her defense. ATOM grows suspicious of QUARK's rise. BOSON increasingly accepts that he is not fit to lead the Accelerator.}

# 30. SUBATOMIC

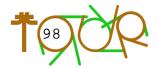
{Overview: On a break, ATOM has a one-on-one with QUARK. They are in this world to make this world, together. TECHNICIANS agree that the subatomics make the atomics make the molecules make the grains make the world.}

#### 31. MESON

{Overview: BOSON gives news that JENTOH has locked herself in the tunnel. She recircuited the Accelerator. BOSON offers his resignation and hands the role of the director of the Accelerator to QUARK. QUARK is ready to find JENTOH.}

## 32. PION

{Overview: QUARK openly forgives ATOM for all the mistreatments that they have done to her. She also apologizes for her own mistreatments. ATOM accepts the apology and wishes to find JENTOH, too.}



## 33. ELECTRON

(QUARK heads to the tunnel. She makes an opening in the tunnel.)

(TECHNICIANs levelly dance about.)

(QUARK finally enters the tunnel. She takes it all in.)

(JENTOH runs across, parallel to the tunnel. She seems to be searching.)

[A sudden flash of light fills the insides of the tunnel.]

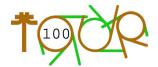
(TECHNICIANs run away.)

(QUARK feels the impact. A remarkably colourful áo dài - a garment worn by the musical writer's Vietnamese culture and currently the only thing he is imagining - instantly covers her, like Cinderella. She collapses, dead.)



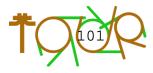
# 33a. ELECTRON (reprise)

(ЛЕПТОН rushes away, without noticing QUARK.)



# 34. FISSION

```
(BOSON slyly enters.)
(Curving around to the opening of the
tunnel.)
(Entering the tunnel.)
(Examining QUARK.)
(Dismayingly turning his head.)
(ATOM hides themself in the tunnel. They
hold onto the operator's control, like a
weapon.)
(BOSON drags ATOM out.)
(Growing disappointed.)
(ATOM grows instable. They may laugh or cry,
but they go insane.)
(BOSON seizes the operator's control.)
(ATOM tries to crawl away into the tunnel.)
(In the tunnel, BOSON smashes ATOM with the
operator's control. BOSON splits ATOM.)
```



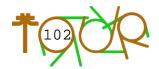
# 35. PHOTONIC PARITY

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

(BOSON directs TECHNICIANs to stand down.)

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

(BOSON loses control of his body.)



## 36. BARYON

(JENTOH makes her presence known from within the opening of the tunnel. She fearfully inspects an unrecognizable QUARK. She pushes away QUARK. She drags out ATOM's corpse.)

(BOSON mutely pleads to  $\mbox{\it JEПТОН}$  to stop TECHNICIANs.)

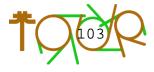
(ЛЕПТОН directs TECHNICIANs to cock.)

(TECHNICIANs cock their magnets.)

( $\mbox{\it JEПТОН directs TECHNICIANs}$  to twist.)

(TECHNICIANs twist their magnets.)

(BOSON experiences a seizure. He dies.)



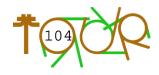
# 37. DECAY

[A darkness suddenly swallows everything but the opening of the tunnel.]

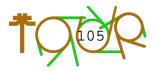
(ЛЕПТОН drag ATOM back into the tunnel.)

(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 tunnel. They drop two magnets by JETTOH.)

(JENTOH looks on at the darkness dwelling outside. She holds a magnet in each hand. She looks at ATOM. She looks at the space. She directs the magnets towards her head. She falls back, dead.)



# ACT III



```
[Quantum World]
```

(QUARK is suited as a particle that is rainbow-like and colourful.)

(PARTICLEs flow out from the opening of the tunnel. They shoulder QUARK. They gently set QUARK on her feet.)

(BOSON is suited as a particle that is godly and bright.)

(PARTICLEs carry out BOSON from the opening of the tunnel.)

[The space brightens.]

(BOSON pridefully gets off of TECHNICIANs.)

 $(\Pi E \Pi T O H is suited as a particle that is dull and colourless.)$ 

(PARTICLEs carry out  $\Pi E\Pi TOH$  from the opening of the tunnel. They set her on her feet.)

(ЛЕПТОН joyfully thanks TECHNICIANs.)

(ATOM is suited as a particle that is massive. They shyly enter from the opening of the tunnel.)

(PARTICLEs follow ATOM. They orbit ATOM.)



## 38. SUPERSYMMETRY

{Overview: Time is stasis. No matter what the matters are, the supersymmetric particles are free to do what they please, beyond the Standard Model and beyond our understanding. Importantly, every particle is beyond half spin. QUARK, JENTOH, BOSON, ATOM, and particles bring their lasting movements and notes before vanishing under the fabric of spacetime: they exit close to the start of the universal tour.}

[Blackout.]



# 39. KNOT (bow)

```
(BOSON arrives, in front of marching
PARTICLEs.)
[Lights up.]
(BOSON bows.)
(ЛЕПТОН arrives, orbiting PARTICLEs. She
bows.)
(QUARK arrives with PARTICLEs orbiting her.
She bows.)
(ATOM arrives with PARTICLEs orbiting them.
They bow.)
(PARTICLEs merge together away from QUARK,
ЛЕПТОН, BOSON, and ATOM. They bow.)
(QUARK, ЛЕПТОН, BOSON, and ATOM fuse. They
bow.)
(Optionally, PARTICLEs orbit ORCHESTRA.)
(Optionally, QUARK, ЛЕПТОН, BOSON, and ATOM
pull out CREW.)
[Close circuit.]
```

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