

19 January 2016

## Back to Independence

### Final draft

<b>Doc John:</b>		<b>John Ellis</b>
<b>Gianni McVuolo:</b>		<b>Gian Giudice</b>
<b>Security Guard:</b>		<b>Urs Wiedemann</b>
<b>Fabula:</b>		<b>Francesco Riva</b>
<b>Nanie:</b>		<b>Nanie Perrin</b>
<b>Michelle:</b>		<b>Michelle Connor</b>
<b>Painters:</b>		<b>Bruce Campbell &amp; Vincent Drach</b>
<b>Carpetlayers:</b>		<b>Agostino Patella &amp; Guillermo Ballesteros</b>
<b>LHC engineers:</b>		<b>Elena Gianolio &amp; Marina Marinkovic</b>
<b>ATLAS:</b>		<b>Serguei Sibiryakov</b>
<b>CMS:</b>		<b>Aleksi Kurkela</b>
<b>Malaysian:</b>		<b>Adrian Carmona</b>
<b>Germanwings:</b>		<b>Wessel Valkenburg</b>
<b>Russian:</b>		<b>Serguei Sibiryakov</b>
<b>Therrorists/Refugees:</b>	<b>1</b>	<b>Diego Blas</b>
	<b>2</b>	<b>Bruce Campbell</b>
	<b>3</b>	<b>Agostino Patella</b>
	<b>4</b>	<b>Guillermo Ballesteros</b>
<b>Sepp:</b>		<b>Daniel Figueroa</b>
<b>Darth Nima:</b>		<b>Wessel Valkenburg</b>
<b>QE:</b>		<b>Jeanne Rostant</b>
<b>Charles, William, George:</b>		<b>Bruce Campbell, Vincent Drach, Aleksi Kurkela</b>
<b>Chuck:</b>		<b>Diego Blas</b>
<b>Singer:</b>		<b>Wessel Valkenburg</b>

*[START Johnny B. Goode music.]*

## **Back to Independence**

*[END Johnny B. Goode music.]*

*[START Back to the Future music.]*

### **1 - Back to the Present**

*[STOP Back to the Future music.]*

*[Show video clip on moveable screen centre stage]*

*[START Back to the Future music.]*

*[Doc John drives on stage.]*

*[STOP Back to the Future music.]*

**Security Guard:** *[appears from behind screen, after gender reassignment surgery, screen removed by Nanie and Michelle]*

You cannot come in here. You do not have an access sticker  
*[indicates where it is missing].*

**Doc John:** Great Scott! *[Ogles and fondles her/him rudely]*

**Security:** Keep your hands to yourself! This is not Cologne train station! Show me your CERN ID card! *[Doc John shows it proudly.]*

**Security:** This is no good. It expired in 1985. This is 2016.

*[Michelle shows 2016.]*

**Doc John:** Great Scott! I must have got the date wrong. This is a time machine, and I must have screwed up the settings *[fiddles]*. Back in my day, all the guards were male! And what has happened to you? I thought that you were male in the video?

**Security:** That was 2015, this is 2016. Now that we have a female DG and a female head of international relations, even the security guards must change with the times. Even the Theory Department has one female staff member! *[General cheers.]*

**Fabula:** Nobody permanent!

**Gianni** *[appears on skateboard]:* Let him in! With his help, I will return the Theory Department to the glorious days before 2003. Now thanks to Fabula ... *[Gianni kneels.]*

**Fabula** *[she taps him on the shoulder, Gianni licks her boots]* I appoint you Commander of the Theory Empire.

**Gianni:** We have our independence, we can go back in time and prevent all the disasters that have happened since we were enslaved in 2003.

*[Security waves them through, Power of Love music]*

**Doc John:** Great Scott! What are these guys doing? *[Indicates Bruce and Vincent with paint brushes.]*

**Nanie:** They are painting lines for our gorgeous new parking lot. *[Doc Ellis parks.]*

**Michelle:** You cannot park there, that is for kindergarten parents. Well actually, maybe you can park that kiddie car there. *[Doc Ellis gets out of car and enters Theory Department.]*

**Nanie:** Please fill in your registration form. Here are your gas mask and earplugs.

**Doc John:** Great Scott! These are new. Why do I need them?

*[Drilling sounds]*

**Gianni:** They discovered asbestos in the Finance Department on the floor above, and are taking it out.

**Doc John:** Couldn't they leave the asbestos there?

**Gianni:** We cannot let the Finance Department die until we get a budget for the Theory Department.

*[Drilling sounds]*

**Doc John:** And what is this strange material that these guys are laying on the floor? *[Indicates Agostino and Guillermo laying carpet.]*

**Michelle:** It is our new carpet. Didn't you have carpets back in 1985?

**Doc John:** Just mud floors. But why the dirty brown colour?

**Nanie:** So it won't show all the coffee stains.

**Doc John:** What about tea stains?

**Michelle:** Not a problem: somebody stole our tea machine.

**Gianni:** But what about the physics?

**Doc John:** Have you discovered supersymmetry yet?

**Fabula:** No sign of it.

**Doc John:** Great Scott! What about other new physics?

**Gianni:** Nothing, just a very Standard Model-like Higgs boson.

**Doc John:** Great Scott! What a disaster! There must have been a bifurcation in the space-time continuum, and CERN took the wrong path in the multiverse because it did not have an independent Theory Department [*boos*]. We must travel back in time and undo the past disasters.

*[Back to the Future music. Doc John and Gianni attempt to drive off stage.]*

**Nanie:** Wait, before you go anywhere, you must fill in these Travel authorization forms. [*Lots of forms.*]

**Michelle:** Do you call that a car? Then you need to fill in these insurance forms. [*Lots more forms.*]

**Security Guard:** Is that a Volkswagen? Does it have a diesel engine? What are its Nitrogen Oxide emission levels?

**Doc John:** Don't you recognize a DeLorean when you see one? As you know from the movies, it's driven by fusion power.

**Gianni:** Kindly provided by the North Koreans!

*[Back to the Future]*

*[Doc John and Gianni drive off stage.]*

*[START No limits music]*

## 2 - Back to the Past

*[STOP No limits music, Michelle shows 1993.]*

*[Doc John and Gianni drive back on stage.]*

**Doc John:** 1993 was when the SSC was cancelled: that was not a disaster. [*Fiddles with time machine.*]

*[Michelle shows 2008.]*

*[Enter LHC engineers, struggling with tubes and wires.]*

**Gianni:** What are you doing?

**LHC engineers:** [*Trying to connect broken magnets*] It's broken. We cannot operate the LHC.

**Doc John:** Great Scott!

**Gianni:** We will put it back together again [*looks proud*].

*[Michelle shows 2010.]*

**LHC engineers:** [*Fiddling with wires.*] We still cannot operate it at the design energy. [*Dial starts*

*at 7, moves to 8.]*

**Doc John:** Great Scott!

**Gianni:** We can soon fix that. *[They connect the wires, Michelle shows 2015, dial moves to 13, maybe 14.]*

**Doc John:** 13! With the extra energy, now **ATLAS** and **CMS** must discover supersymmetry.

*[Enter ATLAS and CMS. ATLAS struts around, looking very strong and confident, while CMS looks unhappy.]*

**CMS:** *[disconsolate]* I cannot power up my magnet. How can I discover missing transverse momentum if I cannot measure momentum?

**Doc John:** Great Scott!

**Gianni:** We can soon fix that. *[They power up CMS using a bicycle pump.]*

**Doc John:** Now you can discover supersymmetry.

*[ATLAS and CMS look everywhere for supersymmetry.]*

**ATLAS:** We still did not find supersymmetry.

**CMS:** But look what we have found again!

**Doc John:** Great Scott! That looks like the Higgs boson again.

**Gianni:** No sign of any deviation from the Standard Model.

**Doc John:** Great Scott! That's a real disaster! *[Throws away the Higgs]*

*[Airplane noises.]*

*[Malaysian plane flies across stage.]*

*[Germanwings plane crashes.]*

*[Malaysian plane returns, is shot down by Russian.]*

*[Russian plane is shot down by Terrorist.]*

**Doc John:** Compared to the Higgs and supersymmetry disasters, these airpalnes are easy to repair. *[Doc Ellis and Gianni pick up airplanes, mend them, and planes fly off. Airplane noises.]*

**Gianni:** Back to make the Higgs boson non-standard and discover supersymmetry.

*[Tremendous AK47 noises off-stage. Terrorists rush in with guns.]*

**Doc John:** Compared to the Higgs and supersymmetry disasters, these terrorists are easy to fix. *[Power of Love music. Doc John and Gianni put flowers in the barrels of their guns.]*

**Gianni:** Peace be with you!

**Terrorists:** Salaam aleikum!

**Doc John:** Wa-aleikum salaam!

*[Power of Love music. They conceal their guns, keep flowers and turn signs to become Refugees.]*

**Refugee/Theorist 1:** Look, no guns! We are refugees!

**Refugee/Theorist 2:** Help us escape from the tyrannical regime of the oppressive Experimental Physics State. *[ATLAS and CMS oppress.]*

**Security:** Where are your access cards?

**Nanie:** You must register.

**Gianni:** No problem escaping experimental constraints. Now that the Theory Department is independent, all your problems are solved.

*{Nanie and Michelle in paddling pool}*

**Nanie:** Not quite! You haven't finished yet!

**Michelle:** Please rescue us from the dreaded Physics Department secretarial pool.

**Doc John:** Don't worry, we will rescue you. *[Doc John and Gianni pull Nanie, and Michelle out of the paddling pool.]*

**ATLAS:** *[Carrying sign in the dreaded font.]* There is still another disaster to fix.

**CMS:** Please save us from the awful comic sans font!

*[Doc John flips the sign to reveal Times New Roman. They drive off, everybody cheers.]*

*[Back to the future cut]*

*[START Hello music]*

### **3 - Back to the Future?**

*[STOP Hello music]*

*[Michelle shows 2016.]*

*[Refugees/Theorists in tremendous argument with chalk and blackboard eraser.]*

*[Doc John and Gianni drive back on stage.]*

**Gianni:** What is going on here?

**Refugee/Theorist 1:** Now we have our independence back, we can use our chalk and argue at the blackboard again.

**Refugee/Theorist 2:** Haven't you heard? ATLAS and CMS have reported a possible hint of a

crazy new particle.

**Nanie:** This is the real reason we did not have our party before Christmas.

**Michelle:** They were arguing and writing lots of papers about their crazy new theories.

*[Refugees/Theorists continue tremendous argument. Clicks. Flip cards: 10, 50, 100, 150, 250, 500, 750.]*  
*[Ding sound]*

**Doc John:** But you do not even know whether this crazy new particle exists.

**Fabula:** But you are allowed to be slightly excited.

**Gianni:** We will go back to the future to see whether it is real.

*[Fiddles with time machine. Back to the Future music. Doc John and Gianni drive around stage.]*  
*[Michelle shows 2045.]*

**Gianni:** All I see here is a desert. And where is Lake Geneva? It has all dried up.

**Doc John:** Because of climate change. The good news is that it made it much easier to dig the FCC tunnel.

**LHC engineer 1:** And it helped when North Korea became a Member State ...

**LHC engineer 2:** ... and they kindly dug the tunnel with their nuclear bombs.

**CMS:** And Donald Trump paid 2 billion Swiss Francs ...

**ATLAS:** ... because we told him it would keep refugees out.

**Theorist 1:** And Catalonia left Spain and became another member state!

**Theorist 2:** And Scotland left the United Kingdom and became another member state!

**Theorist 3:** And Greece did not GREXIT from CERN!

**Theorist 1:** And Palestine, Iran and Cuba became member states!

**Theorist 4:** So the UN decided we did more for world peace than they did, so they gave us their budget and became our international relations office.

**Theorist 2:** And Sepp Blatter gave us money from his bribes.

*[Sepp walks on stage with football and box of money. Football crowd noise. Fabula takes it.]*

**Doc John:** You only gave us half the money! *[Doc John gives him red card.]*

**Fabula:** But it was enough to build the FCC.

**Doc John:** What about the physics?

**Gianni:** Is there a relaxion?

**Fabula:** No!

**Doc John:** Is there a twin Higgs?

**Fabula:** No!

**Gianni:** Are there gravitational waves?

**Fabula:** No! Yes! Maybe!

**Doc John:** And what about the 750 GeV boson? Does it exist?

**ATLAS:** Yes, it exists *{shows 750}* ...

**CMS:** ... but there was this unidentified flying object over CERN ...

**Theorist 4:** ... and the 750 GeV particle was abducted by aliens.

*[Star Wars music, 750 GeV object stolen by Darth Nima.]*

*[God Save the Queen music.]*

**QE2:** But one has not been abducted.

**Doc John:** Where are your corgi dogs? Have they been abducted?

**QE2:** No, now dogs are forbidden from CERN. *[Much barking.]* One has now been Queen for 93 years. Just 7 more years, and it will be time for one's double gold anniversary.

**Charles:** What about my turn, Mummy?

**QE2:** When you grow up!

**William:** What about my turn, Granny?

**QE2:** After him!

**George:** What about my turn, Great-granny?

**QE2:** Naughty boy! *[QE2 shows him finger. EXITS with princes stabbing each other in backs.]*

**Gianni:** I have just discovered a big problem. With the 750 GeV particle taken away, no supersymmetry and the top quark a couple of GeV higher than had been thought ....

**Doc John:** What does that mean?

**Gianni:** It means that the Universe is unstable. Its lifetime is much less than we thought. It

could decay at any moment into a **BIG CRUNCH.**

*[Crash noise]*

### **Gianni B. Good lyrics:**

Deep down in Geneva close to St Genis  
Way back up in the woods where runs the LHC  
Stood a theory unit with a blackboard of wood  
Where worked a country theorist named Gianni B. Good  
Who never ever learned to experiment so well  
But he could make predictions, data to fore-tell

*[Chorus:]*

Go Go  
Go, Gianni, go, go  
Go, Gianni, go, go  
Go, Gianni, go, go  
Go, Gianni, go, go  
Gianni B. Good

He would carry 'round his laptop in a gunny sack  
And sit having coffee in the R1 caff.  
Experimenters saw his papers on the ArXiv  
Amazed at how all his predictions thrived  
The bosses passing by, they would stop and say  
"Oh my, that little theorist we should pay"

*[Chorus:]*

Go Go  
Go, Gianni, go, go  
Go, Gianni, go, go  
Go, Gianni, go, go  
Go, Gianni, go, go  
Gianni B. Good

His advisor told him "Someday you will be CERN staff"  
And lead a Theory Unit that's been cut by half  
Postdocs will be coming from miles around  
Job-hunting as you try to raise it from the ground.  
But now we're a department and we'll be right  
'Cause we have Gianni B. Good tonight!

*[Chorus:]*

Go Go  
Go, Gianni, go, go  
Go, Gianni, go, go  
Go, Gianni, go, go  
Go, Gianni, go, go  
Gianni B. Good tonight

*[QE2 shows The End.]*

