

Higgsfall

with apologies to Ian Fleming

Dec. 7th, 2012

Scenes:	Ahmad & Rob
ATLAS:	Andrea
CMS:	Nazila
Dr Nonewphysics:	Diego
Bond#1/CommanderBondEllis:	John
Bondgirl#1/Ms Naniepenny:	Nanie
M:	Michelle
Adele:	Julien
Elementary:	Alex
Composite:	AdS
RFQ:	Adam
Bond#2:	Glenn
Bond#3:	Peter
Bond#4:	Rob
Bond#5:	Ahmad
Argentinian Cop#1:	Ahmad
Argentinian Cop#1:	Pedro
URSula UNdress:	Christophe
QE3:	Jeanne
Corgi:	Spitchki
SPY:	Sunghak

[Bond music]

['Diamonds are forever' music]

Scene 1: Higgs and Bond are not forever

CMS *[happy]*: 3 sigma! *[CAST cheers]*

ATLAS *[happier]*: 4 sigma! *[CAST cheers]*

CMS *[very happy]*: 5.1 sigma! *[CAST cheers]*

ATLAS *[even happier]*: 5.8 sigma! *[CAST cheers]*

[ATLAS and CMS celebrate.]

ATLAS *[concerned]*: 4 sigma?? Something is going wrong with our Higgs data: our tau-tau signal has disappeared. *[CAST groans]*

CMS *[worried]*: 3 sigma?? Ours as well. And now something else is going wrong with our data: our b-b-bar data have gone missing. *[CAST groans]*

ATLAS *[very worried]*: Ours, too. Now something strange is happening to our gamma-gamma signal. *[CAST groans]*

CMS: What is the problem?

ATLAS: It is so strange that I am not allowed to tell you.

CMS: Now there is something strange happening to our gamma-gamma signal as well.

ATLAS: It looks like somebody is hacking into our data.

[Hooded Dr Nonewphysics shoots ATLAS and CMS, steals from them discs with pictures of Higgs and Englert, and escapes. ENTER Bond#1, examines corpses, looks through heaps of garbage.]

Bond#1: Where are the missing Higgs data? How can anybody find anything in my office? *[Gets out hi-tech phone and calls.]* The name is Bond, John Bond. Is that **M**? *[Picture of H is waved.]* No, I don't want to speak to **H**! *[Picture of B is waved.]* No, I don't want to talk to **B**! *[Picture of P is waved.]* No, I don't want to talk to **P**. I want to talk to **M**! *[Picture of M is waved.]* No, not that **M**, he just collides particles. I mean the real **M** who really runs this place. *[M appears.]*

M *[on phone]*: You've lost what? The Higgs data?

Bond#1: Gone!

M: Not just the tau-tau channel? b-b-bar as well?

Bond#1: All gone!

M: And now gamma gamma? Both ATLAS and CMS? All of it?

Bond#1: Yes, all of it!

M: Well, Bond, you'd better get the data back!

[BondGirl#1 arrives in her car, CBE gets on, and they chase the Dr Nonewphysics. CBE changes to his scooter. BondGirl#1 gets a call from M.]

M: Can you get a clear shot?

BondGirl#1: No, I worry that I may hit **Bond**.

M: Don't worry about that, Bond never dies. And it's his own fault if he does, he has been doing this for 50 years. He should have retired by now. Shoot!
[BondGirl#1 shoots, CBE falls.]

BondGirl#1: Ooops! *[Splash!]*

M: No problem. We can always get a new **Bond** for the next scene. You have saved the CERN Pension Fund from an even bigger deficit.

BondGirl#1: At least we will get our pensions!

[Music only]

*This is the end
Hold your breath and count to ten
Feel the earth move and then
Hear my heart burst again
For this is the end
I've drowned and dreamed this moment
So overdue, I owe them
Swept away, I'm stolen*

[CAST sing the words]

If the Higgs falls,
when it crumbles
We will stand tall
Face it a-1-1 together
If the Higgs falls,
when it crumbles
We will stand tall
Face it all together
At Higgsfall
At Higgsfall
Higgsfall is where we start
16 miles of dipoles apart

*When quarks collide, and matter's dark
You may have my number,
you can take my name
But you'll never have my heart*

If the Higgs falls,
when it crumbles
We will stand tall
| Face it a-l-l together
If the Higgs falls,
when it crumbles
We will stand tall
Face it all together
At Higgsfall
At Higgsfall when it crumbles
We will stand tall

Scene 2: Higgs another Day

[Elementary and Composite clamour loudly, waving papers.]

Ms Naniepenny: What do you want?

Elementary: Now that the Higgs data have gone away, I will never go to Stockholm.

Composite: Me neither. And Peter Higgs will have to give his Nobel prize back!

Ms Naniepenny: But he does not have it yet!

Elementary: So he will have to give it back when he does get it.

Composite: M must do something about it.

M *[enters]*: Get me another James Bond.

[Enter Bond#2, who flirts with Ms Naniepenny.]

Ms Naniepenny *{pushing him away}*: That is not in the CERN competency model!

M: You are as bad as the previous Bond. And, what's worse, he lost the Higgs boson, your task is to find it.

Bond#2: For that I will need some new and expensive gadgets.

RFQ: No problem, I have lots of ideas for expensive factories for making Higgs bosons. *[Pulls successive gadgets out of the pocket of his lab coat.]* How about a linear electron-positron collider? *[CAST boos.]*

M: No, not that, it is too expensive. We will need the whole MI6 budget until 2050 to pay for it, and Bond will just break it.

RFQ: How about this low-cost photon-photon collider. Very cheap! Given away almost for free with the Large Hadron-electron Collider. [*CAST boos.*]

Bond#2: You get what you pay for! I can't see many Higgs decay modes with this.

RFQ: How about a muon collider? [*CAST boos.*]

Bond#2: You must be joking! The technology for that is so far away that the electroweak vacuum will decay long before.

RFQ: How about a circular electron-positron collider in the LHC tunnel? [*CAST cheers.*]

ATLAS, CMS [*in unison*]: Over our dead bodies!

M: Bond, what are you doing?

Bond#2: I have been looking on the internet for candidates to be the next **Bondgirl**. **I am Googling "Higgs Bosom"**. This model in Argentina says she has all the Higgs data. She certainly has two very impressive peaks. Maybe one of them has a mass of 126 GeV? Quite a nice bottom signal too. I will check her out.

[*Bond#2 flies to Buenos Aires, where he is met by the Argentinian cops and Dr Nonewphysics.*]

Bond#2: Where is my internet **Bondgirl**? I cannot wait to check out her bottom signal and measure the masses of her twin peaks.

Dr Nonewphysics: Who do you think you are? Paul Frampton? She couldn't wait for you. She went to Japan to make Higgs with the ILC. They may have very thin beams, but very intense. She asked you to take her suitcase, she said that it has the missing Higgs data.

[*Bond#2 takes the suitcase. The Argentinian cops inspect him, then the suitcase, and find white powder. They drag off Bond#2.*]

Scene 3: Doctors No

Dr Nonewphysics: That **Bond** was such a fool. But nothing can save you now. You see, I have moved the mass of the Higgs boson down to 125 GeV, the vacuum is unstable, and I will destroy the Universe.

M: With that **Bond** stuck in an Argentinian jail, we need to audition for a new **Bond** to deal with this threat.

{*Enter Bonds#3, 4 and 5. Ms Naniepenny inspects them.*}

M: Your first test is to flirt outrageously with **Ms Naniepenny**.

*{One by one, **Bonds**#3, 4 and 5 flirt with Ms Naniepenny. She shows them the CERN Code of Conduct and gives them zero.}*

Ms Naniepenny: I am shaken, not stirred.

M: It says in the CERN Competency Model that you should show flexibility.

Ms Naniepenny: I preferred the **Bond** in the first scene, he was a true English gentleman.

M: We have to go beyond the Standard Bond if we are going to stabilize the vacuum.

Ms Naniepenny: Your next test is to repeat the most famous Bond line.

Bond#3: The name is Bond, Peter Bond. *[Ms Naniepenny shakes her head.]*

Bond#4: The name is Bond, Rob Bond. *[Ms Naniepenny shakes her head.]*

Bond#5: The name is Bond, Ahmad Bond. *[Ms Naniepenny shakes her head.]*

Ms Naniepenny [to **Bonds**]: Your next test is to get the **Bondgirl** to fall in love with you.

*[Enter **URSula UNdress**.]*

URSula UNdress: Come collide with me, baby, your fluid will be perfect, and I will quench your jet.

*[The **Bonds** are all scared and run away.]*

URSula UNdress: You may all have PhDs, but you are all hopeless.

| **Ms Naniepenny:** **DOCTOR**s, yes, but **NO** good!

Bond#1 *[Enters]*: Excuse me!

[Ms Naniepenny welcomes him back, M is not so friendly.]

M: I thought you had been written out of the play at the end of the first scene.

Bond#1: Bond never dies! I went back to my office, where I found copies of the missing Higgs data hidden under a pile of papers. *[Shows discs.]*

M: It is too late now, the mass of the Higgs boson has gone down to 125 GeV ...

Ms Naniepenny: ... and the entire Universe is doomed. The Mayas were right!

Bond#1: Let me check. *[Looks at discs.]* No, I can recalibrate the electromagnetic calorimeter and, look here, the mass is 128 GeV and the vacuum is stable again!

Ms Naniepenny: **Bond** has saved the Universe! The Mayas were wrong ... maybe?

Bond#1: We will find out on the 21st!

Scene 4: On Her Majesty's Public Service

Ms Naniepenny: Who is the Bondgirl in this scene?

M: She is the Queen of England, we are going to have a VVVVVIP visitor.

Ms Naniepenny *[sceptically]*: Right, we all believe you, and we have a Korean pop singer in the Theory Division.

M: If you do not believe it, watch the ceremony!

[Helicopter sound. QE3 and Bond#1 descend with umbrellas as parachutes.]

QE3: My corgi and I congratulate ATLAS, CMS and CERN on discovering the Higgs boson *[polite applause]*. And *[to Bond#1]*, in gratitude to you for saving the Universe, one is pleased to appoint you Commander of the Bosonic Empire. *[Hangs medal around Bond#1's neck.]*

ATLAS/CMS: Is the corgi going to pee on our detectors?

QE3: It is OK, he is not one's greatgrandchild. *[To CBE.]* In your next film, you must save the British Empire by babysitting my grandchildren and stopping them appearing naked on the internet.

Bond#1: That is a really tough assignment.

M: SO, you see, this scene's **Bondgirl** IS the Queen of England!

Ms Naniepenny: And we DO have a Korean pop singer in the Theory Division. *[Introduces SPY.]*

Boson style lyrics

Oppan Boson style, Boson style
A particle warm and humanle during the day
A particle who knows how to enjoy the freedom of a cup of coffee
A Higgs whose heart gets hotter when night comes
A Higgs with that kind of twist
I'm a Higgs
A Higgs who is as warm as you during the day
A Higgs who one-shots his coffee before it even cools down

*A Higgs whose heart bursts when night comes
That kind of Higgs*

Beautiful, sparticle
Yes you, hey, yes you, hey
Beautiful, sparticle
Yes you, hey, yes you, hey
Let's cancel loops till the end

Oppan boson style, boson style
Oppan boson style, boson style
Oppan boson style

Eh - Sexy fermion,
Oppan boson style
Eh - Sexy fermion oh oh oh oh

*A quark who looks quiet but plays when she plays
A quark who puts her hair down when the right time comes
A quark who covers herself but is more sexy than a girl who bares it all
A sensible quark like that*

*I'm a Higgs
A Higgs who seems calm but plays when he plays
A Higgs who goes completely crazy when the right time comes
A Higgs who has bulging ideas rather than muscles
That kind of Higgs*

Beautiful, sparticle
Yes you, hey, yes you, hey
Beautiful, sparticle
Yes you, hey, yes you, hey
Let's cancel loops till the end

Oppan boson style, boson style
Oppan boson style, boson style
Oppan boson style
Eh - Sexy fermion,
Oppan boson style
Eh - Sexy fermion oh oh oh oh

*On top of the running man is the flying man,
Baby, baby, I'm a man who knows a thing or two
On top of the running man is the flying man,
Baby, baby, I'm a man who knows a thing or two
You know what I'm saying*

Oppan boson style
Eh - Sexy fermion,
Oppan boson style
Eh - Sexy fermion oh oh oh oh

The End
(but not of the Universe)