

**CERNlost Holes**  
and the  
**Mystery of the Molten Accelerator**

**Dec. 12<sup>th</sup>, 2008**

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|-------------------------------|---------------------------------|
| <b>Scenes:</b>                | <b>Jorge &amp; Michelle</b>     |
| <b>CERNlost:</b>              | <b>John</b>                     |
| <b>Dr Whatsnoton:</b>         | <b>Jeanne</b>                   |
| <b>Evans the accelerator:</b> | <b>Julien</b>                   |
| <b>Cauchemar:</b>             | <b>Christophe</b>               |
| <b>Quant:</b>                 | <b>Urs</b>                      |
| <b>Pannick:</b>               | <b>Michelle</b>                 |
| <b>Hawaiian nuts:</b>         | <b>Michelangelo &amp; Steve</b> |
| <b>Holger:</b>                | <b>Jeppe</b>                    |
| <b>Higgs:</b>                 | <b>Bruce</b>                    |
| <b>Susy:</b>                  | <b>Gian</b>                     |
| <b>ExtrADD:</b>               | <b>Gia</b>                      |
| <b>Carla B.S.</b>             | <b>Elena</b>                    |
| <b>Journalists:</b>           | <b>Jorge,Svend</b>              |
| <b>FatWallStBastard</b>       | <b>Bryan</b>                    |

## The Mystery of the Molten Accelerator

*[Music = Baker Street.]*

### Scene 1: Curious, Dr Whatsnoton

*[Poster showing the 'Large Hasbeen Collider'.]*

**CERNlost:** *[Sitting in deerstalker hat, smoking pipe, reading newspaper with a magnifying glass]* Did you read, Whatsnoton, about the curious case of the LHC?

**Whatsnoton:** You mean this diabolical plot by mad scientists to destroy the planet by creating planet-eating black holes?

**CERNlost:** Yes, that's what I mean, though it will not destroy the planet any time soon, following the great meltdown I am reading about in the paper.

**Whatsnoton:** Dash it all, that's splendid news. You mean that they've run out of money after the Wall Street financial meltdown?

**CERNlost:** Not exactly, it seems that the accelerator itself has melted down.

**Whatsnoton:** Dash it all, that's jolly good news. We will not hear anything more about those dreadful mad scientists.

**CERNlost:** I am not so sure about that. *[Banging on door.]* In fact, I think the mad scientists are here now.

*[Evans the Accelerator bursts in, looking very hot and flushed.]*

**CERNlost:** Sit down, my dear chap. You must have come directly from the LHC tunnel.

**Whatsnoton:** How do you know?

**CERNlost:** Elementary, my dear Whatsnoton. He is carrying a CERN breathing apparatus and is covered in icicles, ...

*[Evans the Accelerator squeaks.]*

... and he squeaks in a very high-pitched voice because he has been breathing Helium. Now, please tell us all about this mysterious meltdown.

**Evans the Accelerator:** *[Still squeaking a bit]* We have inaugurated the LHC, and now DG Cauchemar will kill me if I do not get it started before he leaves *[Cauchemar wields whip]*, and the new DG Rolfy will kill me if I do not get it started before he comes. *[On knees]* Help me solve the mystery how it melted!

**CERNlost:** Shall we see what we can do for him, Whatsnoton? *[To Evans]*  
Show me your molten accelerator, my good man.

*[Evans the Accelerator produces molten piece of plastic drainpipe.]*

**CERNlost:** *[Examines it with magnifying glass.]* This does not look very elementary, my dear Whatsnoton. We will have to talk to all the usual suspects.

## **Scene 2: Theoretical suspects**

*[Music = 19<sup>th</sup> magnet meltdown?]*

**Theorists:**

We had to stop, wait around  
Here it comes, here it comes, here it comes, here it comes  
Here comes your nineteenth magnet meltdown

**Whatsnoton:** By jove, Holes, this lot look rather suspicious.

**CERNlost:** Yes, these theorists certainly look rather worried.

**Whatsnoton:** They know that all their theories cannot be right.

**CERNlost:** But they might all be wrong!

**Whatsnoton:** And if they knew that their theories were rubbish ....

**CERNlost:** ... they would have a motive for sabotaging the LHC ...

**Whatsnoton:** ... so that their theories could never be proved wrong!

**CERNlost:** We should study their theories more closely. *[Gets out magnifying glass and examines first theorist.]*

**Higgs:** *[Very hesitantly and apologetically]* If I had known how much trouble my theory would cause, I would never have thought of it.

**Whatsnoton:** What do you think of his theory, Holes?

**CERNlost:** Elementary, my dear Whatsnoton.

**Holger:** *[brandishing sign]* Repent, repent! The end of the LHC is nigh! According to my theory, discovery of the Higgs could cause the end of the world. This would be prohibited by the highest powers in the Universe.

**Whatsnoton:** What do you plan to do about it?

**Holger:** Play a game of cards with the DG. If he wins, that means there is no danger.

**CERNlost:** We could not possibly put you in the play: people would think we were crazy!

**Susy:** I am so beautiful, Nature would be silly not to exploit me. *[Wiggles seductively.]* The LHC is the best way to look for my dark matter.

**Whatsnoton:** What do you think of her theory, Holes?

**CERNlost:** Not even wrong, my dear Whatsnoton. But if she were crazy enough to believe in her own theory, she would not want to kill the LHC.

**ExtraD:** My extra dimension is curled up very tight, and the interactions get very strong. Take a look at my black hole.

**Whatsnoton:** What do you think of his theory, Holes?

**CERNlost:** It does not matter what I think, but it could matter if somebody was crazy enough to believe it. Whatsnoton, pack your bag, we are going visiting in Hawaii.

### **Scene 3: The unusual suspects**

*[Beach boys music. Two Hawaiian nuts hula-hooping and surfing. They distribute wigs to the audience.]*

**Whatsnoton:** Why did you bring us here, Holes? These Americans are completely crazy.

**CERNlost:** You are not even wrong, my dear Whatsnoton. But the question is whether they are crazy enough to kill the LHC because they think it might produce a dangerous black hole.

*[Large numbers of journalists gather round the Hawaiian nuts.]*  
Or did they just want publicity?

**Whatsnoton:** By Jove, Holes, are you suggesting that their motivations are not simply pure, noble and altruistic?

**CERNlost:** More than that, Whatsnoton. Was there ever any chance their lawsuit could stop the LHC?

**Whatsnoton:** Of course not, Holes, not even an American judge could be crazy enough to think that she could stop the LHC.

**CERNlost:** Exactly, Whatsnoton. But their lawsuit did generate a lot of publicity for CERN, did it not?

**Whatsnoton:** Indeed, Holes. So there is no such thing as bad publicity. What could be worse than being accused of destroying the planet, or perhaps the entire Universe?

**CERNlost:** Exactly, Whatsnoton. So, who gained the most from all that publicity?

**Whatsnoton:** Well, CERN, I suppose, Holes. *[Pause while he thinks for a moment.]* But, wait a minute, are you saying that ...?

**CERNlost:** Elementary, my dear Whatsnoton. Yes, maybe CERN paid the Hawaiian nuts to sue CERN in the courts. These Americans are not completely crazy. This Doomsday scare was CERN's most brilliant stunt to gain publicity.

**Whatsnoton:** By Jove, Holes. Well they certainly succeeded beyond their wildest dreams. People gave so much attention to the LHC startup and the magnet meltdown that they did not even spot the Wall Street financial meltdown coming. *[Pause while he thinks for a moment.]* But, wait a minute, are you saying that ...?

**CERNlost:** Not so elementary, my dear Whatsnoton. I think it is about time we visit Wall Street.

#### **Scene 4: The even more unusual suspects**

*[Music = Money, money, money]*

**CERNlost:** Tell us please what caused the great Wall Street meltdown?

**FatWallStBastard:** Well, by sheer coincidence, we happen to live in the only exact anthropically-correct vacuum in which the LHC produces a Quantum Black Hole (QBH) which swallows all the banks in Geneva and causes the great global Wall St. Meltdown. One of my Wall St ex-theoretical physicist quants will explain the whole thing to you. Quant to the front desk, please! *[Aside to CERNLost]* By the way CERNLost, do you want a job?

**Quant:** We quants have this holographic theory of the strongly-interacting financial plasma. *[Shows graph.]*

**Whatsnoton:** Is there any experimental evidence for your theory?

**Quant:** Money is quenched completely! No matter how much money you put in, it all disappears.

**CERNlost:** That sounds like a financial black hole.

**Quant:** All these short-term quantum fluctuations average out over long times to give a purely classical theory.

**Whatsnoton:** And what is the classical theory?

**FatWallStBastard:** Money, you idiot! Money, Money, Money! Slightly more accurately, you need Money, Pure Greed and it always helps to also have a little Fraud going! I, myself, have sold \$40Trillion of Quantum Black Hole Financial Derivatives exclusively to widows, to orphans and, especially, to those geniuses in Wall St. Senior Management. But my biggest customer is the US government bailout fund! You might remember that the Outgoing

President is one of our wholly owned subsidiaries. If my customers were ever to read the fine print, they would discover that they have bet \$40Trillion that there **will** be a financial Quantum Black Hole at the LHC! [*Puts his arm around CERNLost*] Do you want to buy some Financial Derivatives, son?

**Whatsnoton:** Oh my! If there is a financial black hole, it will gobble up the life savings of the whole planet.

**FatWallStBastard:** Of course: that's the best part of my plan. The best part! It doesn't actually matter whether or not there are Quantum Black Holes at the LHC! I'll make \$40Trillion simply because Banks, Governments and everybody else will all immediately PANIC. Wall St will go bankrupt! And that will cause a Global Economic Meltdown. And that will cause the Great Global Depression of 2009!

**Whatsnoton:** What about all these poor people who have no work any more after the meltdown? [*Indicates the audience.*]

**FatWallStBastard:** Who cares! So what if all these people will lose their jobs, lose their homes, lose their pensions, lose all of their savings?. So what if depression and economic darkness shadows all society everywhere? I'll have all of the money! [*Laughs, Sings Abba tune*] Money! Money! Money!, da-da-da-da-da, dee-dee-dee-dee-dee

**CERNlost:** But you did not melt the LHC down only so as to throw them out of work?

**FatWallStBastard:** Of course not! What kind of FatBastard do you think I am? I haven't even gotten started yet, pal! Today I'm filing a lawsuit in American Samoa which will **require** the LHC to make a Quantum Black Hole which will suck all of the money out of Wall St and then re-emit it by Hawking radiation into my pockets! [*Laughs*] Money! Money! Money! da-da-da-da-da, dee-dee-dee-dee-dee. [*Sings Abba tune, shrieks with evil laughter, produces banknotes and throws them to the children in the audience, falls to floor in apoplectic fit*]

[*Chorus of Protons, protons, protons*]

We work all night, we work all day, to simulate event displays  
Ain't it sad  
And still there never seems to be a single proton left for me  
That's too bad  
In my dreams I have a plan  
If I got me collisions  
I wouldn't have to work at all, I'd fool around and have a ball...

Protons, protons, protons  
Make collisions  
In the LHC  
Protons, protons, protons,  
Always colliding  
In the physics world  
Aha-ahaaa

All the things I could do  
If I had a few collisions  
In the LHC

A Higgs like this is hard to find, but I can't get it off my mind  
Ain't it sad  
And if Higgs happens with SUSY, I bet not at the LHC  
That's too bad  
So we must leave, we'll have to go  
To Fermilab or KEK  
And win a Nobel and some fame, CERN's life will never be the same...

Protons, protons, protons  
Make collisions  
In the LHC  
Protons, protons, protons,  
Always colliding  
In the physics world  
Aha-ahaaa  
All the things I could do  
If I had a few collisions  
In the LHC

### **Scene 5: The usual suspects**

**CERNlost:** Those Wall Street guys are so incompetent that they could never have succeeded in sabotaging the LHC so effectively. Anyway, now they have a tanned president who likes black holes.

**Whatsnoton:** Please, no more off-colour jokes! Perhaps it was an inside job?

**CERNlost:** Who had the knowledge to do the job?

**Whatsnoton:** Maybe Cauchemar? He micromanages everything.

**CERNlost:** Do you mean micromISmanages everything? Here he comes.

*[ENTER Cauchemar, wearing an imperial crown. His train is carried by Pannick.]*

**Cauchemar:** Le CERN, c'est moi. I assume that you *[points to audience]* have all come for my magnificent inauguration *[pronounced Frenchly]* ceremony.

*[ENTER Evans the Accelerator. Pannick tries to block his way.]*

**Evans the Accelerator:** *[on bended knee, and touching his forelock]* Sire, there is no accelerator to inaugurate, and the experimentalists are revolting!

**Cauchemar:** Yes, they are. Pas de probleme! Let them eat inauguration cocktail canapés.

*[CERNlost tries to approach the regal presence. Pannick tries to block his way.]*

**Cauchemar:** I assume that nobody investigates me and gets away with it.

**CERNlost:** We just want to know what you think about the LHC meltdown.

**Cauchemar:** Even with nous as the DG-soleil, I assume that these incompetent CERNois have proved themselves incapable [*pronounced Frenchly*] of building a simple little accelerator.

**Whatsnoton:** But what happened?

**Cauchemar:** I assume everybody knows that, between me and my successor, 'le courant ne passe pas'. Alors!? [*Gallic shrug.*]

**Whatsnoton:** So what will happen next?

**Cauchemar:** Apres nous le deluge! Just think what will happen when there is a physicist in charge. I assume that it will be a catastrophe [*pronounced Frenchly*].

**CERNlost:** So what is the solution?

**Cauchemar:** I assume that the only solution is to extend my glorious rule into the infinite future.

**CERNlost:** [*Aside to Whatsnoton*] So that could have been his motive. But did he have the opportunity to kill the LHC? We must talk again to Evans the Accelerator.

[*ENTER Evans the Accelerator.*]

**CERNlost:** Who is responsible for running the LHC?

**Evans the Accelerator:** Me of course, the LHC project leader, until we get it working properly.

**CERNlost:** So you would no longer be running the LHC if it was working properly?

**Evans the Accelerator:** Of course not, then it would be the job of my 'good friend' the new Director of Accelerators.

**CERNlost:** [*Aside to Whatsnoton*] So that could have been his motive. And he did have the opportunity to kill the LHC. Very curious!

**Whatsnoton:** We should talk to the new management?

**CERNlost:** But they are never here! One of them tries to fly Alitalia, and the new DG is stuck in the roadworks in Meyrin.

[*Did Council sabotage it by not granting the full Cost Variation Index?!*]



## Scene 6: Solving the mystery

**Whatsnoton:** There are plenty of people who could have wanted to kill the LHC. Was it a theorist who did not want his theory to be proved wrong?

*[Theorists behave suspiciously.]*

Was it some Hawaiian nut worried that the LHC would destroy the planet?

*[Nuts behave suspiciously.]*

Was it Cauchemar who wanted to stay on as DG until the LHC was working?

**Cauchemar:** Not nous: Obama has given me a job.

**Whatsnoton:** Or did Evans the Accelerator kill the LHC so that he could stay on as Project Leader?

**Evans:** Not me: Obama has given me a job, too.

**Whatsnoton:** Was it Carla, because we did not invite her to the inauguration ceremony?

*[ENTER Carla, strumming guitar, to music of Carla song.]*

**Carla:** And that is why Sarko did not come to the inauguration, either!

**Whatsnoton:** Was the LHC meltdown triggered by the Wall Street meltdown, or vice versa?

*[Wall Street behave suspiciously.]*

Who killed the LHC, Holes?

**CERNlost:** I think I know what happened. *[Gets out magnifying glass and looks closely.]* Look here, Whatsnoton. Do you see what I see? *[Whatsnoton looks through the magnifying glass.]*

**Whatsnoton:** By Jove, Holes, it seems that the LHC started to collide particles after all. And if it did make collisions, maybe it made a ....

**CERNlost:** ... black hole!

*[CERNlost, Whatsnoton and the entire cast are gobbled up by a black hole. Everybody sings.]*

Protons, protons, protons  
Make collisions  
In the LHC  
Protons, protons, protons,  
Always colliding  
In the physics world  
Aha-ahaaa  
All the things I could do  
If I had a few collisions

In the LHC.

**The End**