

Captains' fight

Captains' fight n°3 : Question



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You have **1 minute** to answer the following question :

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When the LHC is running, it produces an incredible amount of data. **If all this data were stored on compact disks, and stacked one onto another, what would be the height of this tower after one year of experiments ?**

Captains' fight : Answer

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- ▶ The typical flow rate of a detector (like ALICE) is 3 To/s.
- ▶ A typical compact disk can store 700 Mo, and is 1,1 mm-thick.
- ▶ In one second, the LHC produces a 4,7 m-high stack.
- ▶ In a year, that number would then become : **148 000 km** (*half one the Earth-Moon distance*)