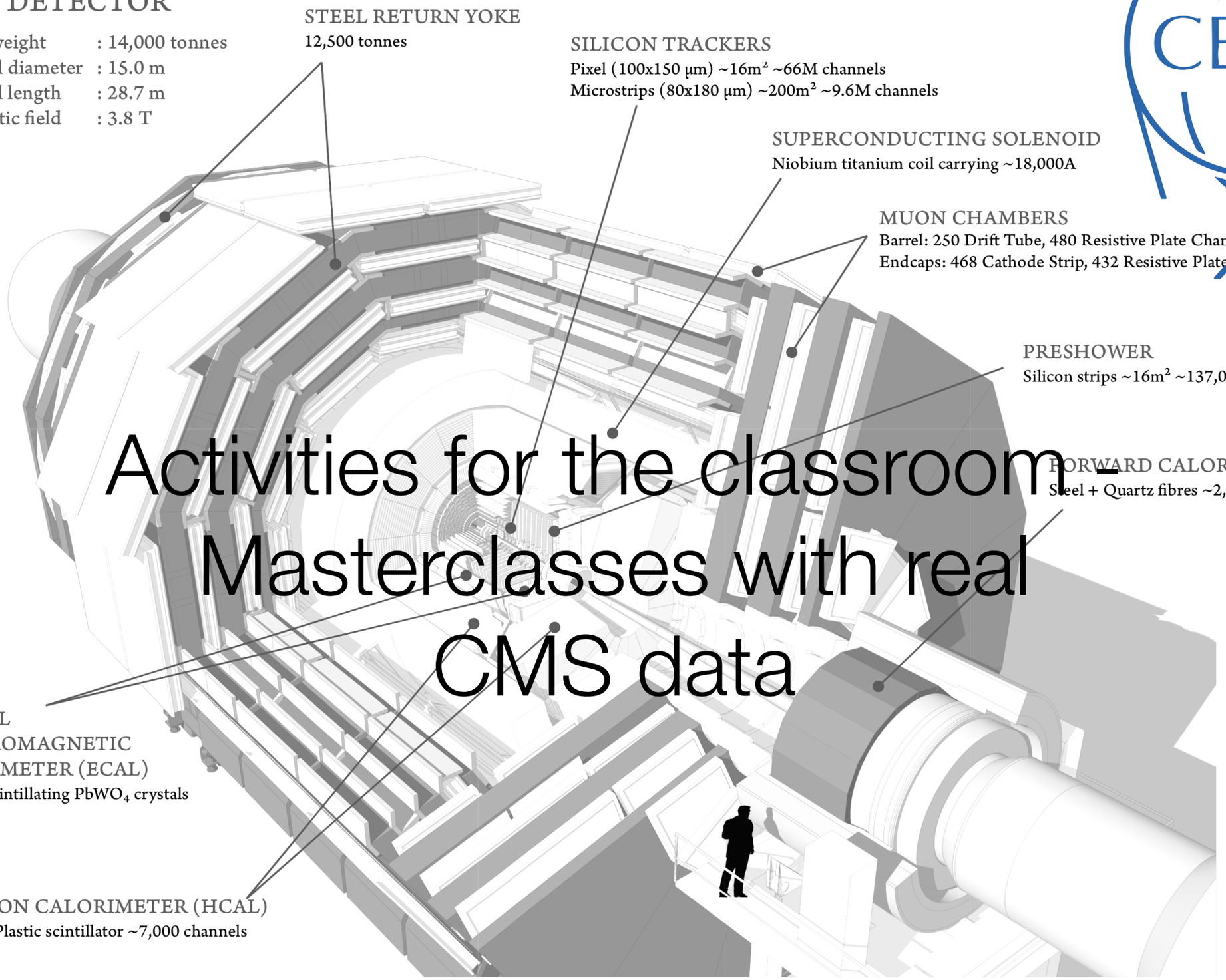
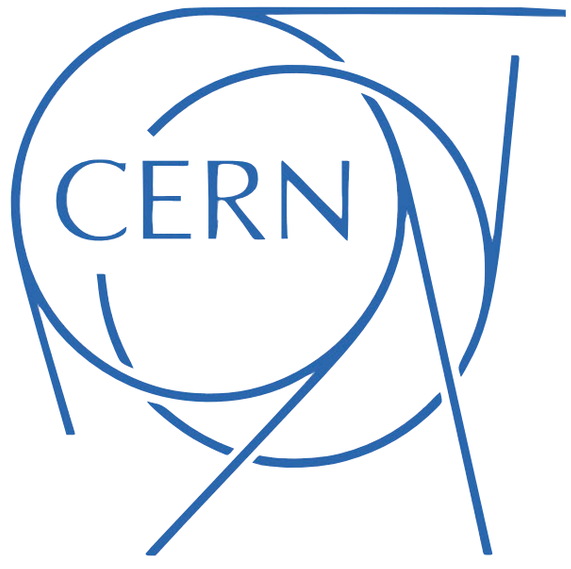
CMS DETECTOR

Total weight	: 14,000 tonnes
Overall diameter	: 15.0 m
Overall length	: 28.7 m
Magnetic field	: 3.8 T



Activities for the classroom – Masterclasses with real CMS data

Konrad Jende, Welsh Teacher Programme 2015



Activities for the classroom - Masterclasses with real CMS data

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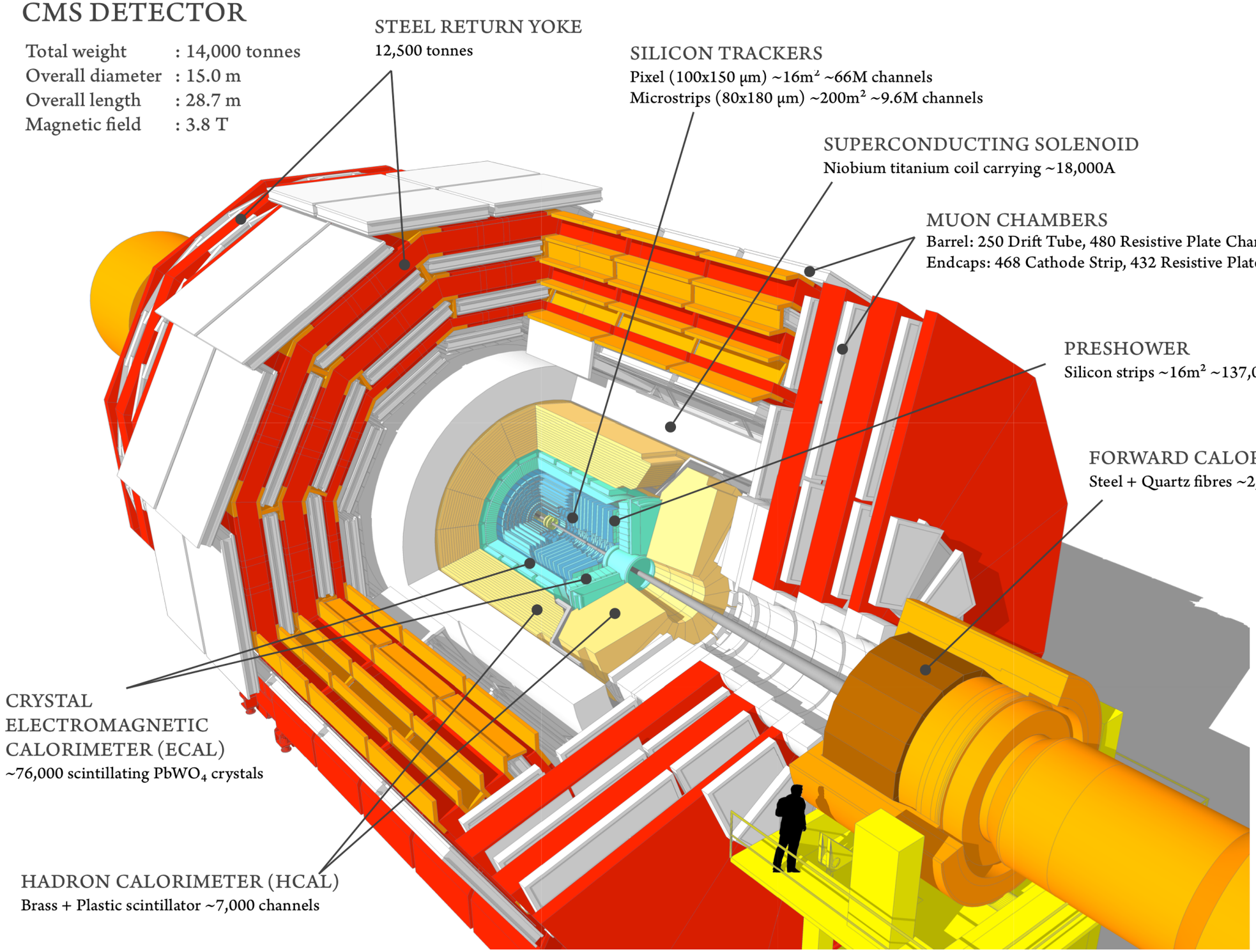

Fig. 1: Sectional view of the CMS detector

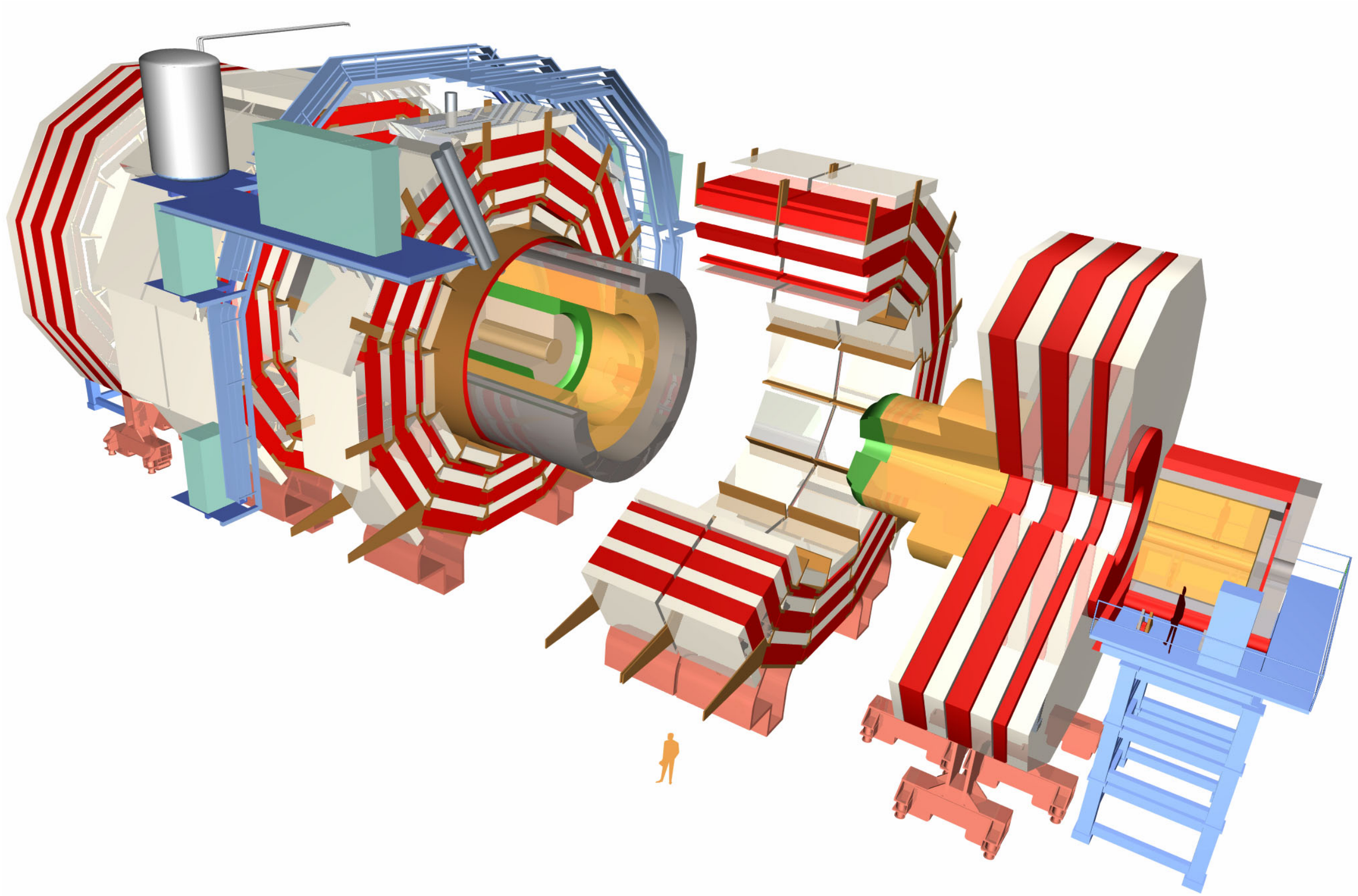

Fig. 2: Modular construction of CMS

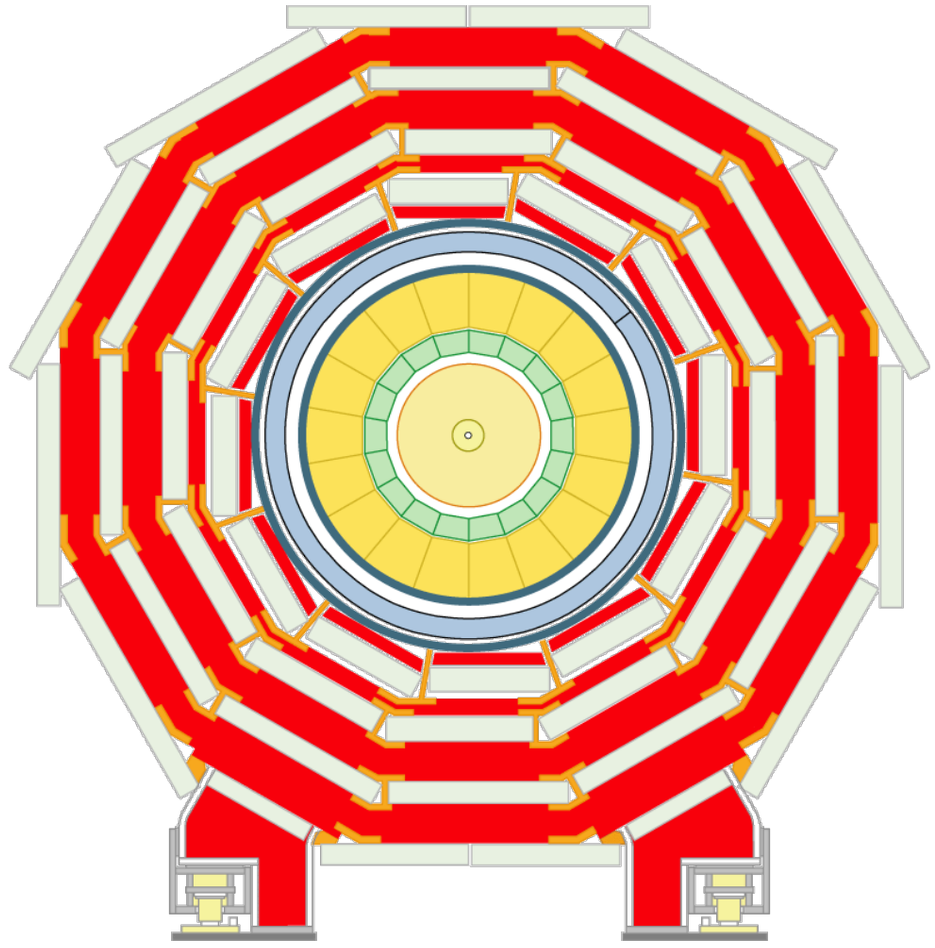

Fig. 3: Cross-sectional view of CMS

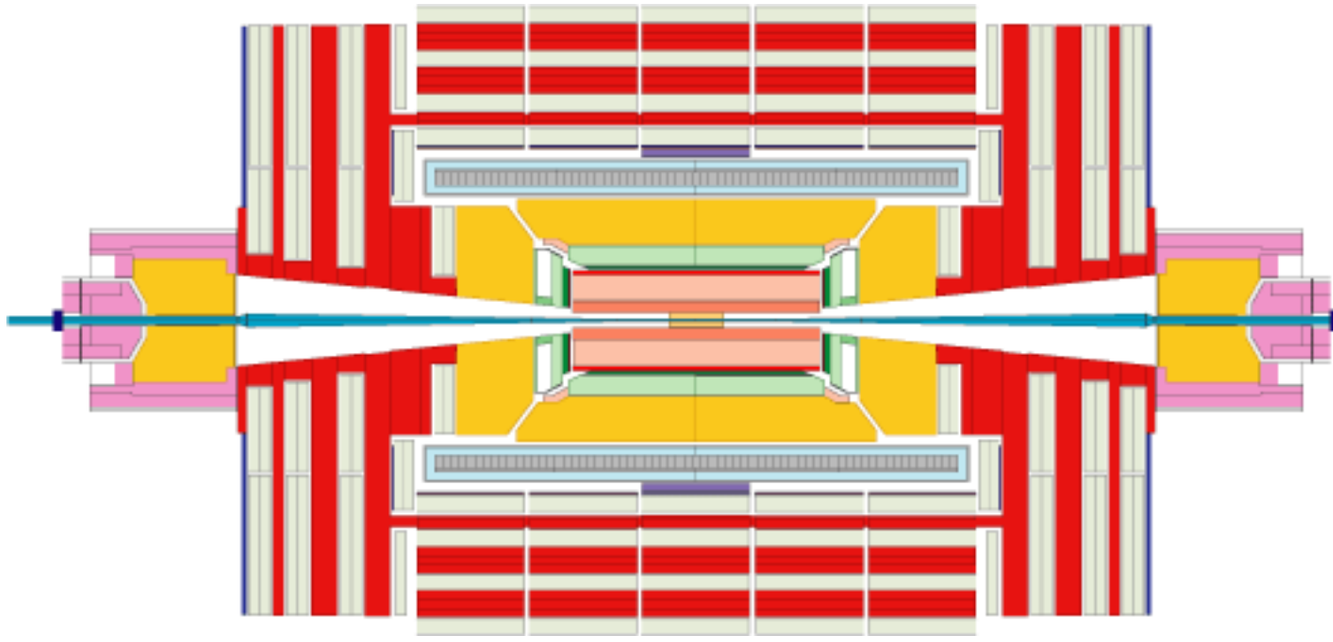

Fig. 4: side-view of CMS

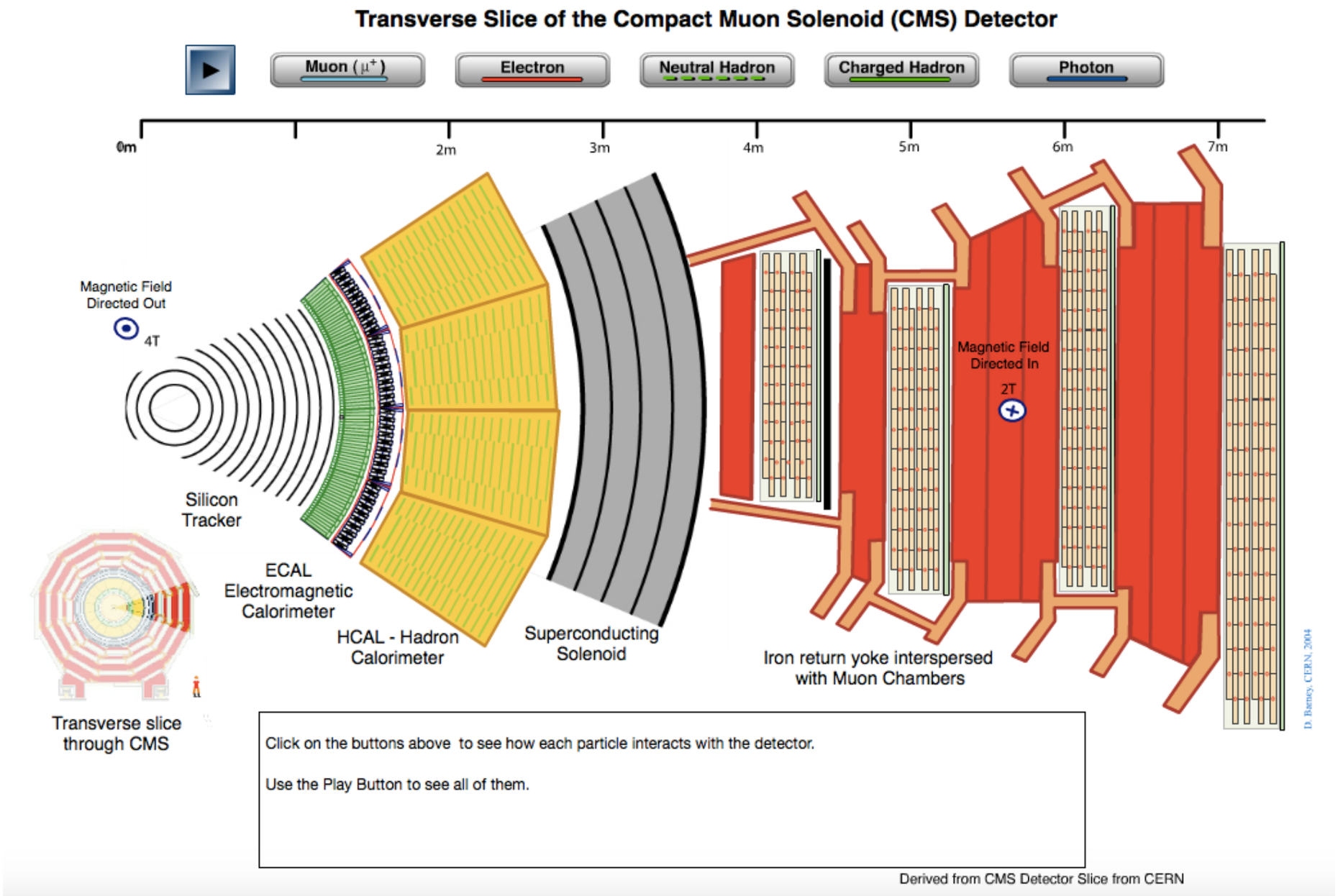

Fig.6: Interactive applet how CMS detects particles

HOMEPAGE | INTRODUCTION | J/Ψ PATH | WZH PATH | EVENTS

CMS International Masterclasses

Join us on a journey to study the smallest building blocks of matter! Data samples from the CMS Experiment at CERN's Large Hadron Collider (LHC) are ready. Make your own data analysis. Follow the menu buttons above: the J/Ψ measurement from Masterclass 2011 and the current W/Z measurement. Students will find information in these web pages and videos. Explore...and then let's do some 21st century particle physics!

LANGUAGES

DE EN FR HE HU IT
JP NL PL PT SP ZH

WHAT ARE CERN AND THE LHC?

WHAT IS CMS?

LINKS

Fig.7: CMS Masterclasses website

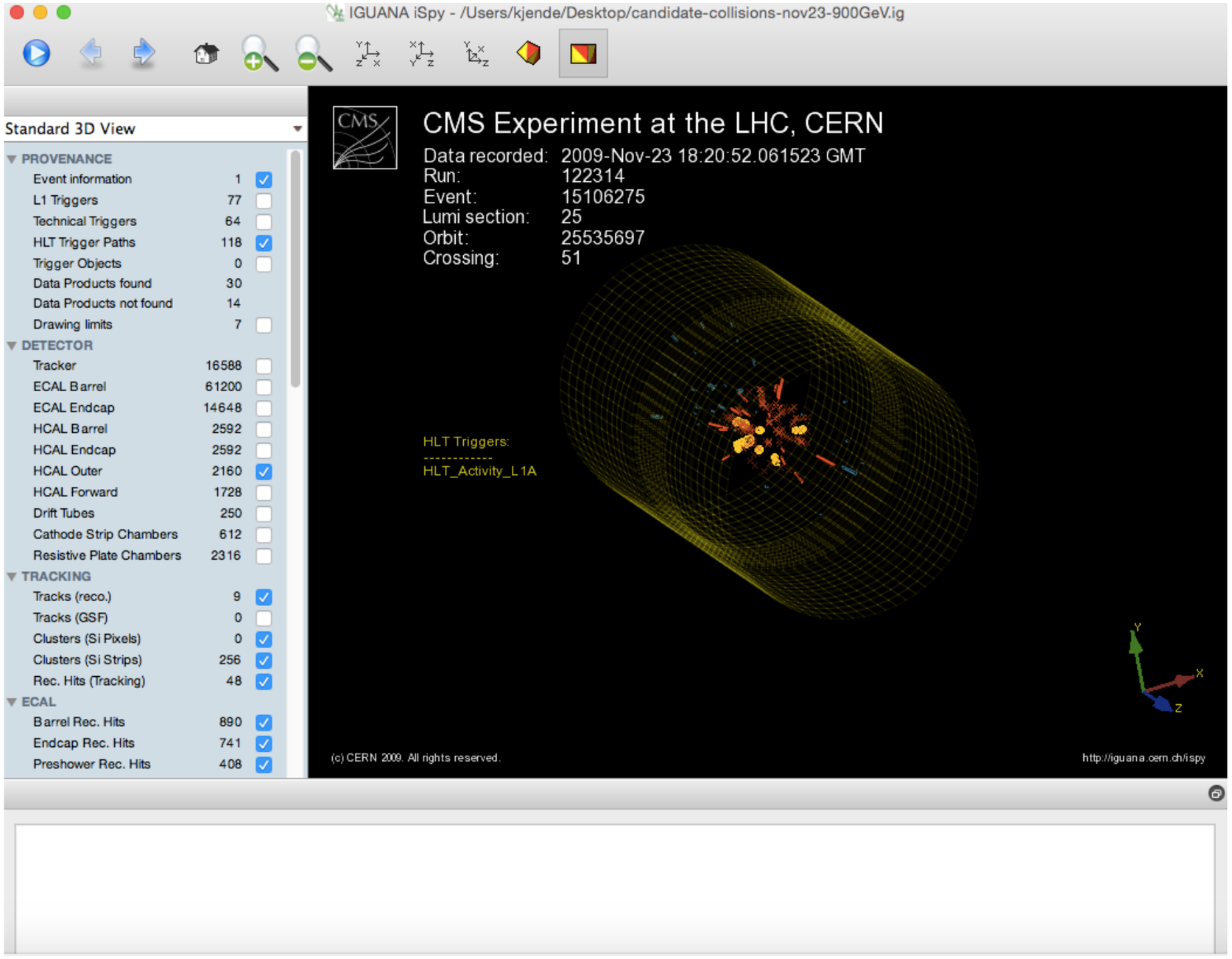

Fig.8: CMS Event Display Programme iSpy

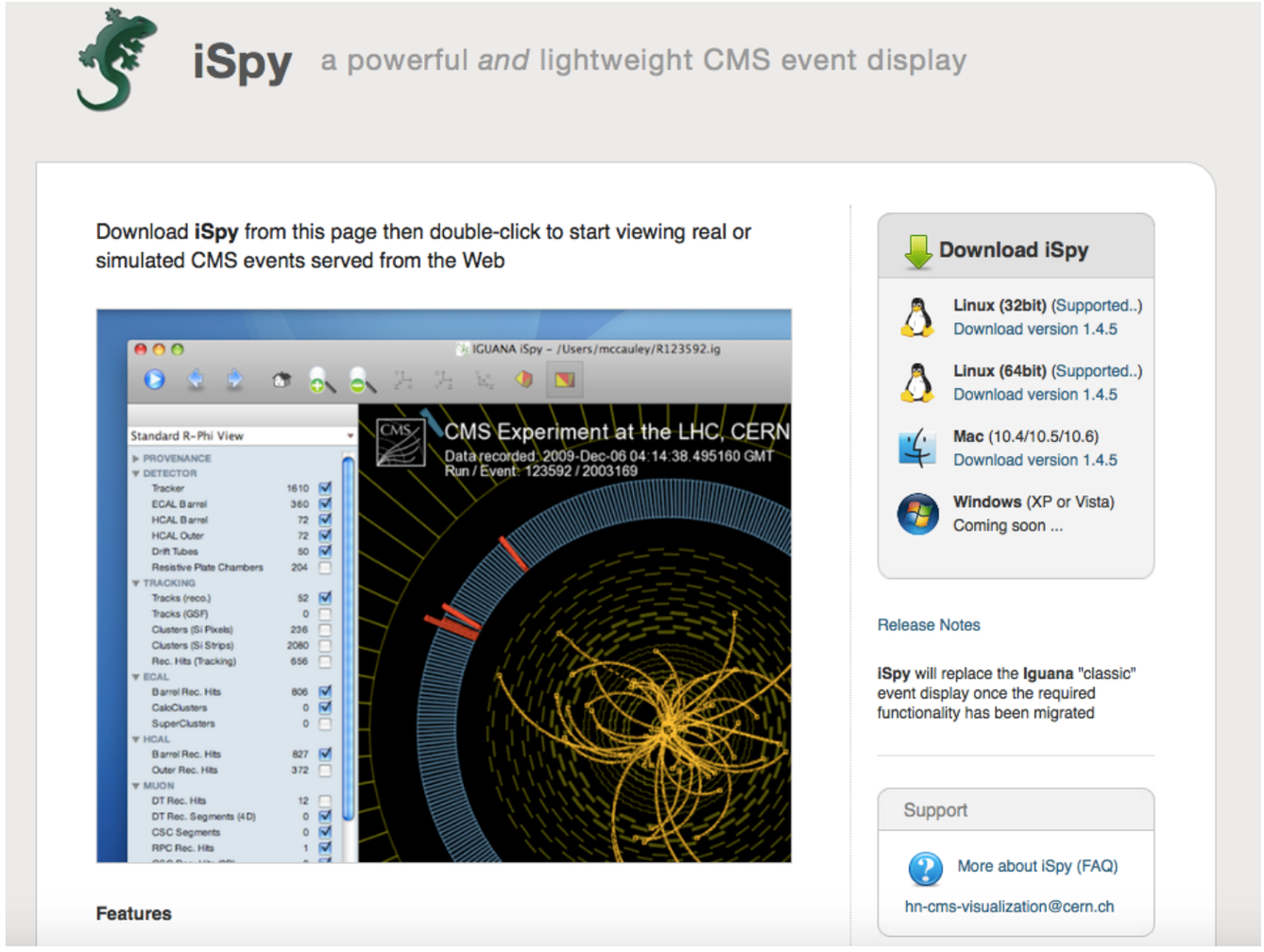

Fig.9: CMS Event Display Programme iSpy

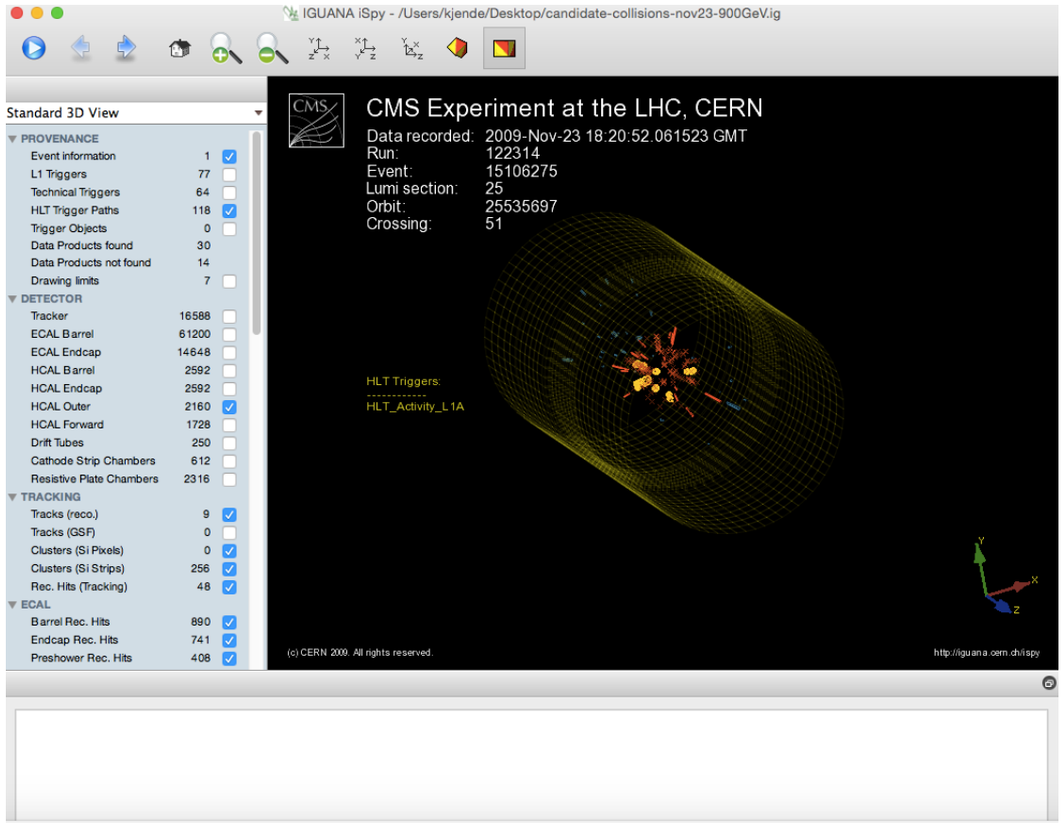

Fig.10: CMS Event Display Programme iSpy

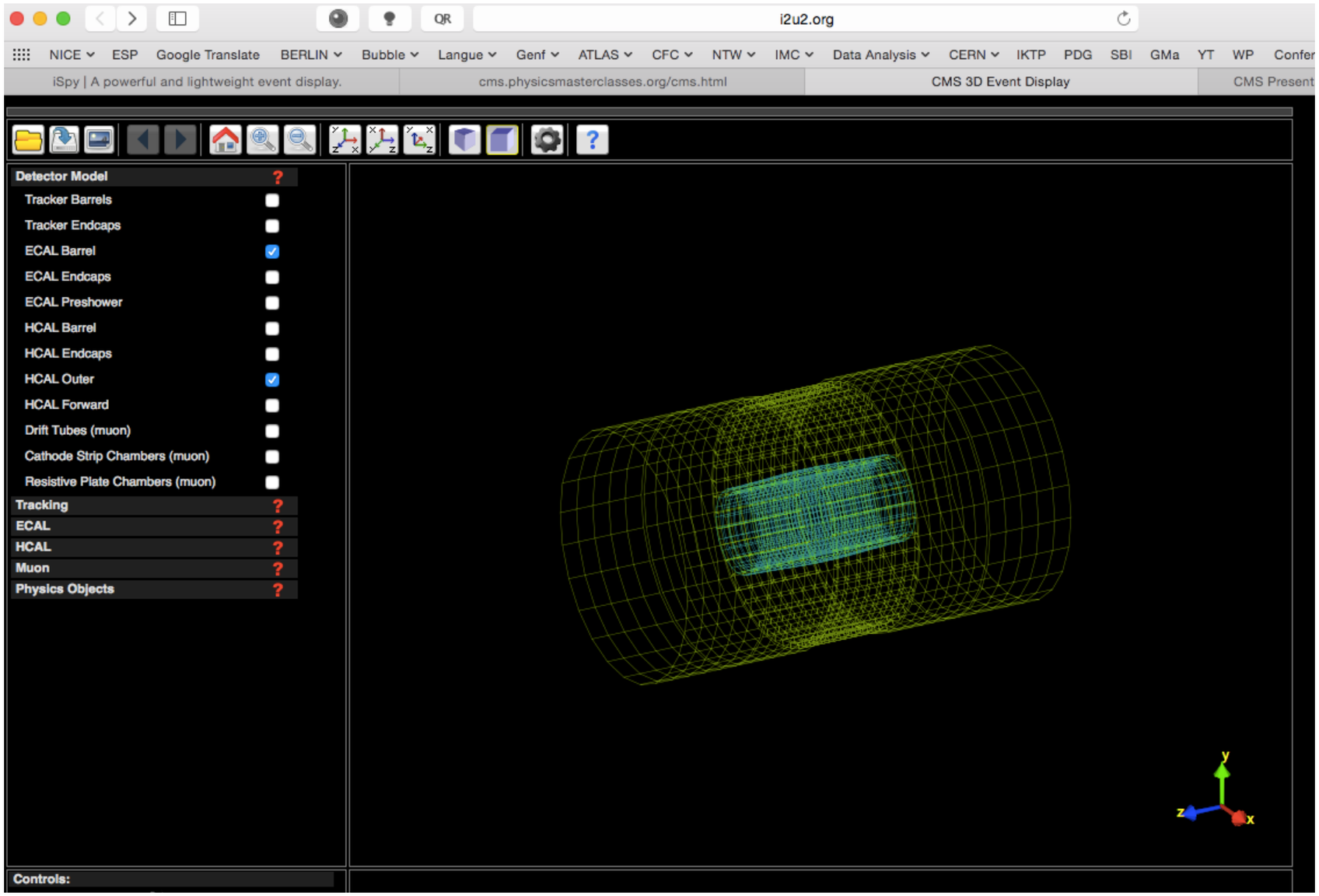

Fig.11: browser-based version of iSpy

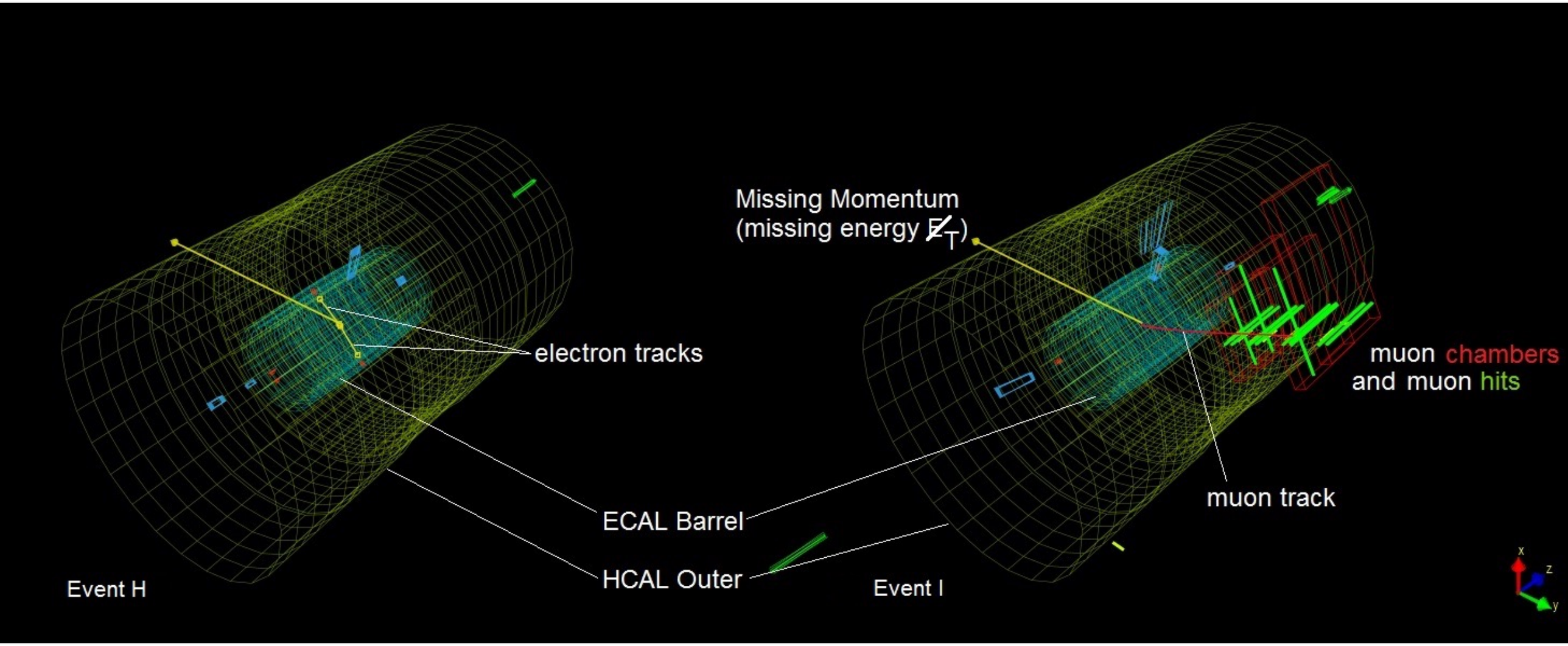

Fig.12: What you can see with iSpy

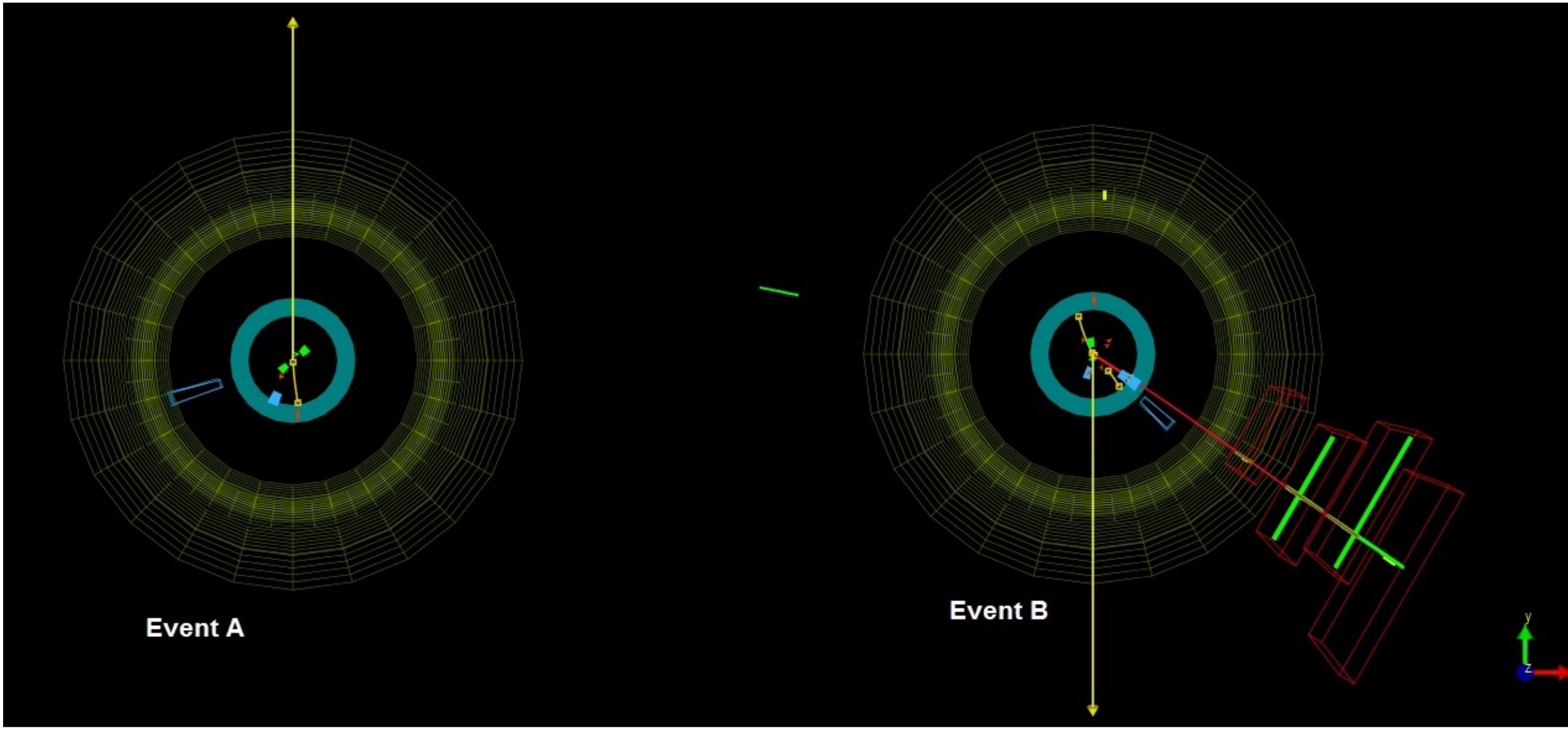

Fig.13: neutrino detection and W particles

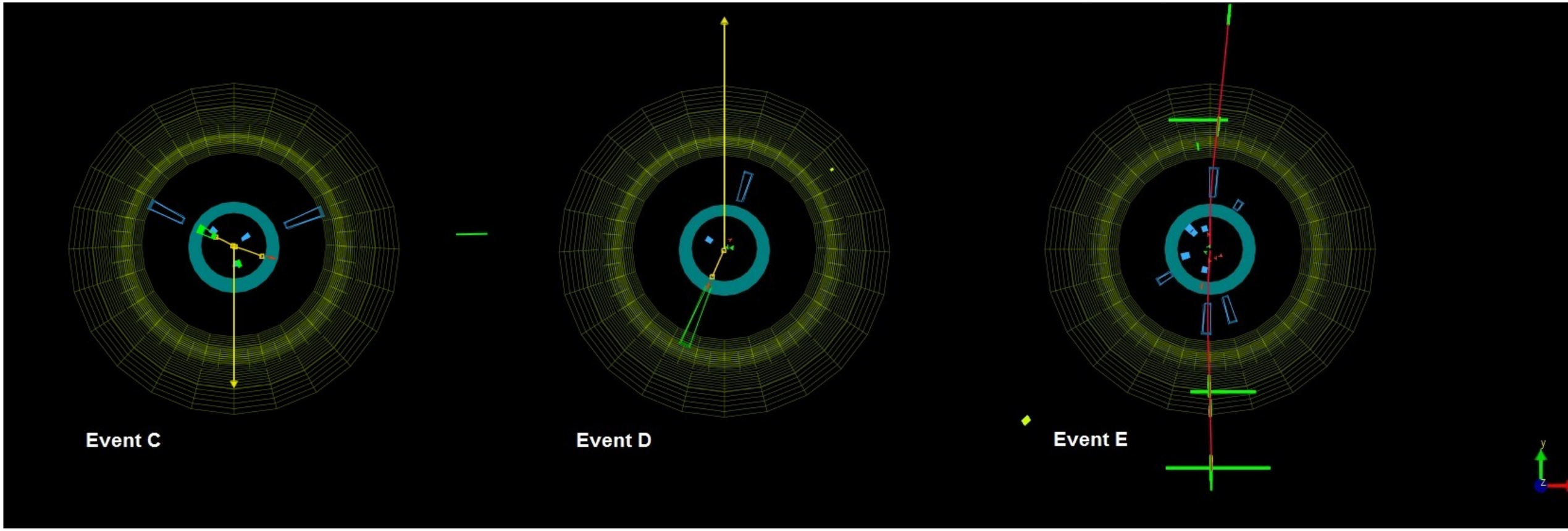

Fig.14: Which event shows the production and decay of a Z boson into a pair of a muon and anti-muon?

1. Start the online event display iSpy
2. Make yourself familiar with the programme
3. Load events
4. Look for particles (electrons, positrons, muons and anti-muons, neutrinos)
5. Look for W, Z and Higgs events