# Cross-over: Reduced Formats / —Metadata+Systematics—

## Is this the future...?

Reco  $\rightarrow$  reduced format  $\rightarrow$  on-the-fly syst  $\rightarrow$  histograms (or tiny tree)

## **Systematics in reduced formats**

#### **Precision**

- Which workflows demand more input than can be placed in reduced formats?
- Systematics derivation on specialised formats
- Application of high precision (or non-parameterised) systematics
- Procedures for parameterisation (NN etc)

#### **Workflows**

 Tracking impact of systematics through analysis stages that touch many columns, e.g. object overlap removal, missing transverse momentum

# Interfaces for on-the-fly systematics

### **Object-based expression of columns**

- Propagating (progressively slimmed) object representation vs regenerating from columns
- Serves systematics tools as well as analysis operations
- A "standalone, dynamic, persistent EDM?

## Systematics book-keeping tools (inside or outside event loop)

- Hooks for visualisation, statistical analysis
- Least experiment-specific aspect?