Combinations and “Global” fits

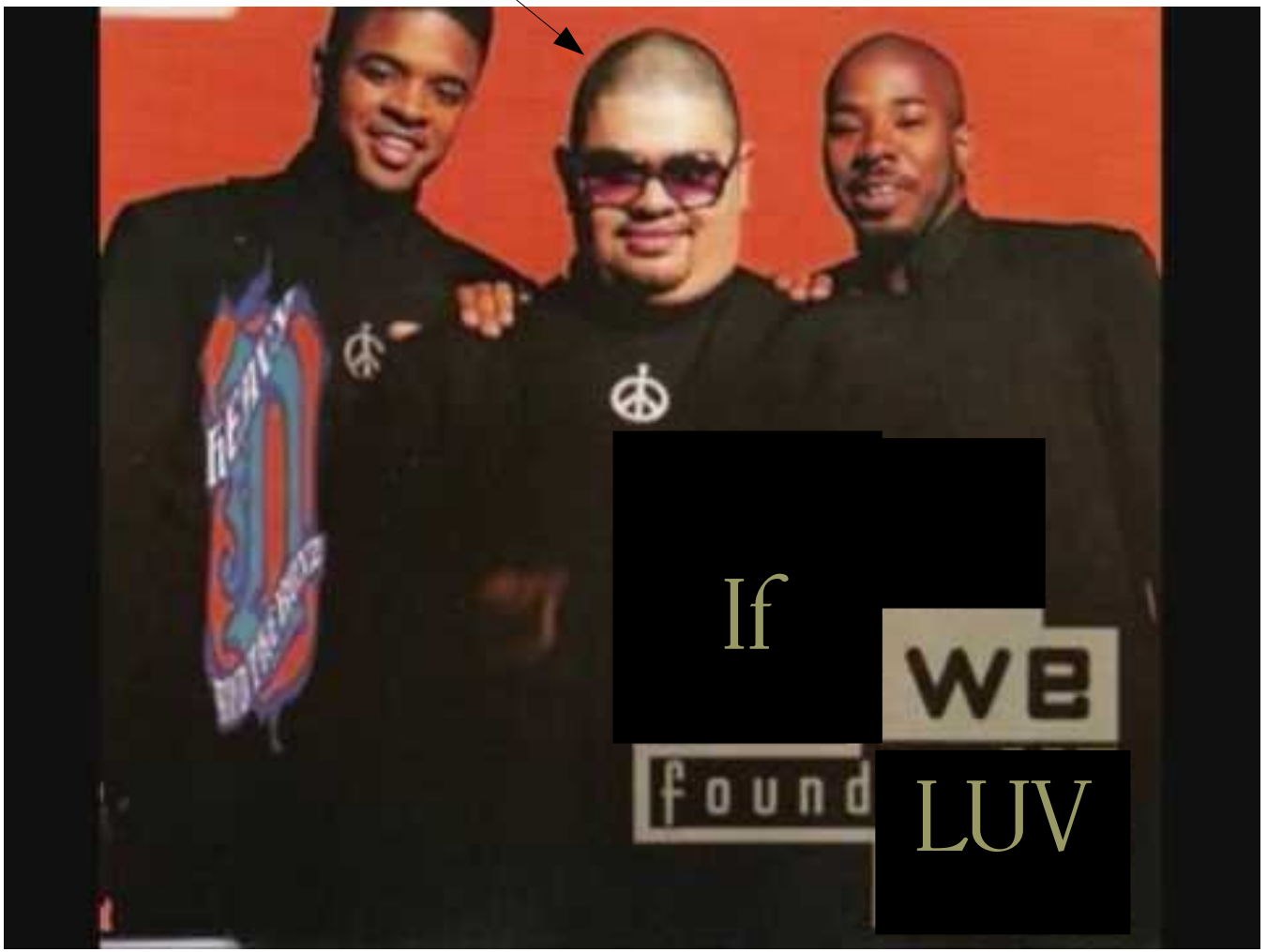
- As we get more precise, combinations of results from different measurements get more important
  - e.g. Wilson coefficients, gamma combination, charm mixing
- Essential to take correlations into account
  - “easy” until now as statistical uncertainties (mainly) dominate
  - non-trivial correlations of systematic uncertainties between “independent” measurements will need careful consideration
    - auxiliary input measurements
    - detector effects
    - combining data from different experiments (e.g. Kπ isospin partners)
  - can we maintain $\sigma_{syst} << \sigma_{stat}$?

Baryons

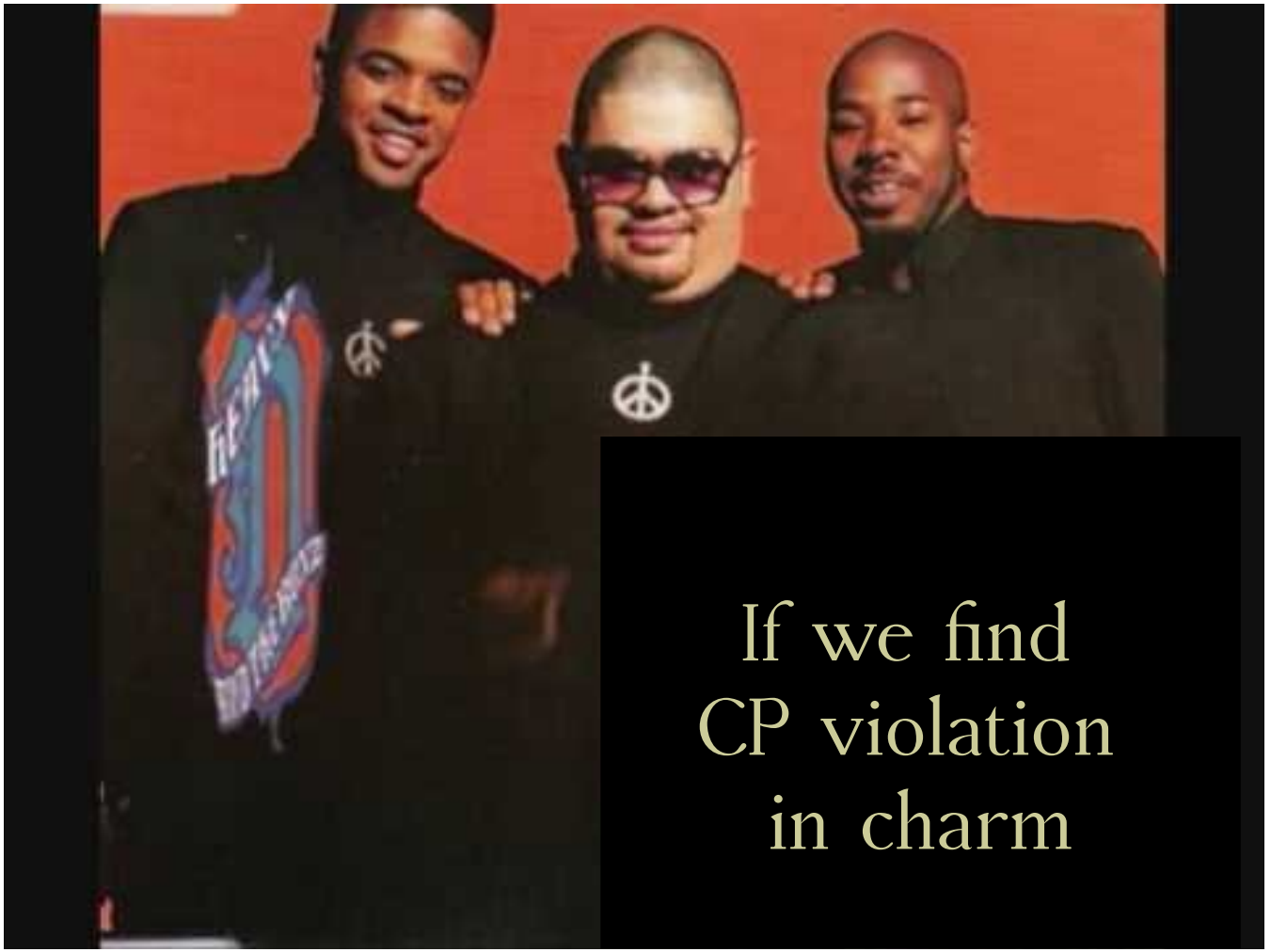
- At the LHC, we produce a lot of b and c baryons
  - growing programme of measurements, but until now mainly production and spectroscopy
- Can we make better use of these to test the SM?
  - several methods in the literature for rare decays
  - relatively little for CP violation
- Scope for progress from both experiment and theory
  - e.g. consideration of polarisation

... what are we gonna do with it?

Heavy D



... what are we gonna do with it?



... what are we gonna do with it?

Thanks … and follow up meeting

- … to everyone for coming, giving great talks and contributing to stimulating discussions
- … to our secretary Hanako Bell for local administration
- … to other organisers: Alex, Sneha, Simone, Mark
- Sorry about the heat. Follow up meeting will be in Durham to compensate
- Exact date tbc, but approximately 12 months from now
  - hope to keep some momentum from this meeting
  - will start organisation in next few months – let us know if you are keen to participate
- Write up will follow the second meeting
  - no rush to do something for the European Strategy process