

# The Resonance Group



$(g, v)^j$  HF  $\gamma \ell \tau \nu W Z H$

j

HF

$\gamma$

$\gamma$

$\tau$

$\nu$

W  
Z  
H

eg.

$\gamma\gamma$

↓

$\mathbb{1}_{0,2}$

$SU(3)^j$   
Q

# Well known Channels

$$b\bar{b} \rightarrow \text{MSSM}$$

$$Z \gamma \rightarrow \text{technimeson}$$

$$ZZ \rightarrow \text{SM } H$$

$$t\bar{t} \rightarrow \text{HFG}$$

$$l^+ l^- \rightarrow Z'$$

$$WZ \rightarrow$$

$$W^+ W^- \rightarrow \text{SM Higgs}$$

$$tb \rightarrow$$

$$jj \rightarrow \text{Excited quarks, composites}$$

$$l\nu \rightarrow W'$$

# Channels to be studied

- ①  $\gamma\gamma$   $KKG$
- ②  $\tau^+\tau^-$   $A^0$
- ③  $j\gamma$   $l\gamma Z$  excited/  
q/composite
- ④  $t\bar{b}$   $W'/H^\pm$
- ⑤  $lj$   $LQ/LG/K$
- ⑥  $tt$   $GUT$   $RS/d:quarkH$   
 $\rightarrow$  other groups
- ⑦  $l^+e^-$   $W^\pm W^\pm$  }  $H^{++}$
- ⑧  $W_j \rightarrow$  heavy  $Q$
- ⑨  $Wl/Zl \rightarrow$  heavy  $L$
- ⑩  $Wt/Wb$  } heavy  $Q$
- ⑪  $Zt/Zb$  }

Signals set aside.

w $\gamma$

H $\gamma$

t b

H g

W H

H b

Z H

H t

H H

b b