Introduction

LSP gluino search
from $\sqrt{s} = 91.2$ to 208 GeV

- **at LEP1:**
  - $e^+e^- \to \mathbf{q\bar{q}\tilde{g}\tilde{g}}$
    $\Longrightarrow q\bar{q}R^{\pm}R^{\pm}$, $q\bar{q}R^{\pm}R^{0}$, $q\bar{q}R^{0}R^{0}$

- **at LEP2 :**
  - $e^+e^- \to \tilde{t}_1\tilde{t}_1 \to \mathbf{c\bar{c}\tilde{g}\tilde{g}}$
    $\Longrightarrow c\bar{c}R^{\pm}R^{\pm}$, $c\bar{c}R^{\pm}R^{0}$, $c\bar{c}R^{0}R^{0}$

  - $e^+e^- \to \tilde{b}_1\tilde{b}_1 \to \mathbf{b\bar{b}\tilde{g}\tilde{g}}$
    $\Longrightarrow b\bar{b}R^{\pm}R^{\pm}$, $b\bar{b}R^{\pm}R^{0}$, $b\bar{b}R^{0}R^{0}$

2 acoplanar jets + 2 gluino "jets"
P=Prob($\tilde{g} \to R^{\pm}$)

Results

Results from 189 to 208 GeV:

- 2 Charged R-hadrons analysis

$m_{\tilde{g}} \leq 30$		$30 < m_{\tilde{g}} < 60$		$m_{\tilde{g}} \geq 60$	
Data	MC	Data	MC	Data	MC
0	0,115±0,033	0	0,003±0,002	0	0,005±0,003

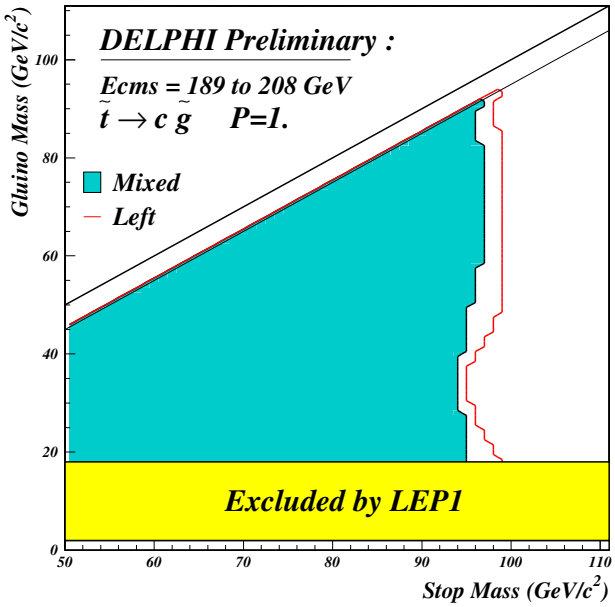
- 1 Charged R-hadron analysis

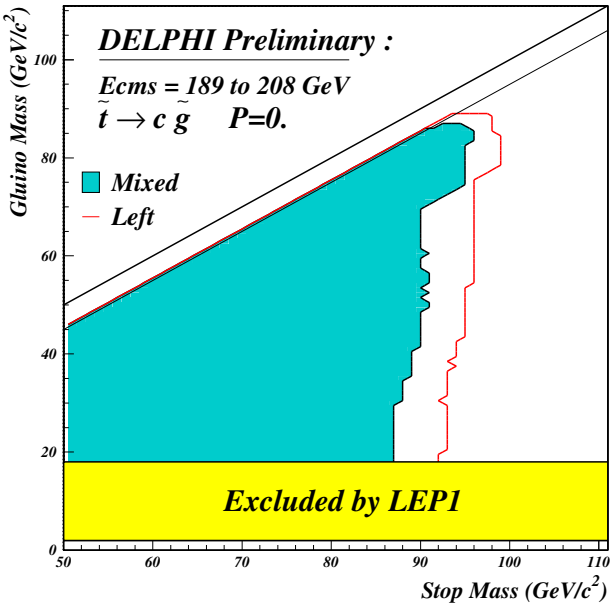
$m_{\tilde{g}} \leq 30$		$30 < m_{\tilde{g}} < 60$		$m_{\tilde{g}} \geq 60$	
Data	MC	Data	MC	Data	MC
3	1,594±0,150	9	8,156±0,387	6	6,565±0,355

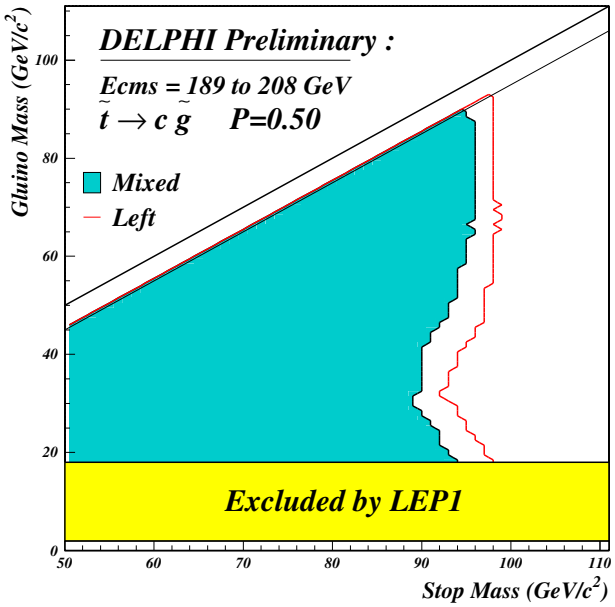
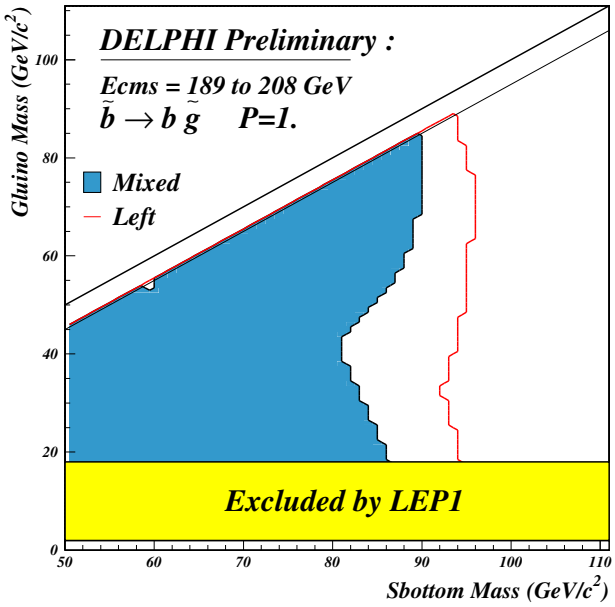
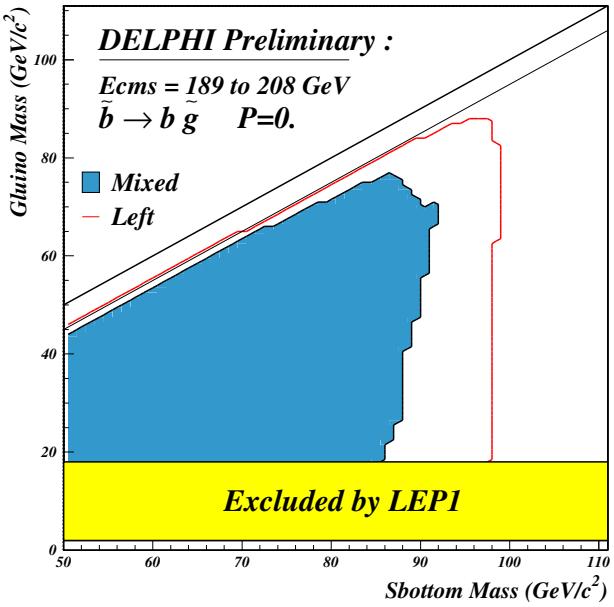
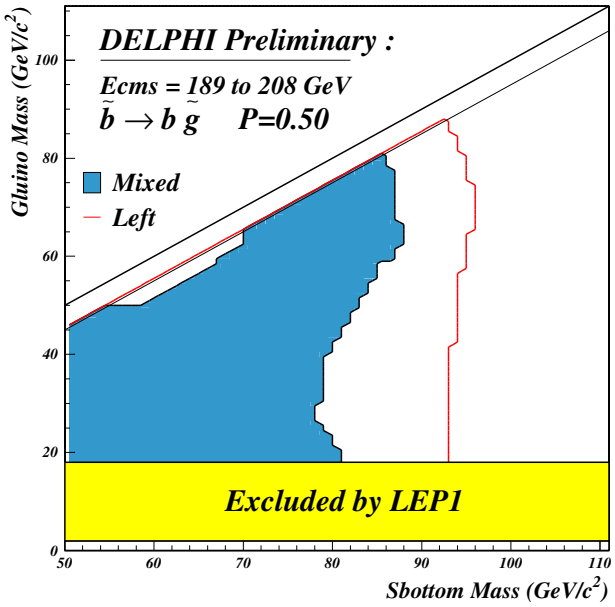
- Neutral R-hadron analysis

	$\Delta M > 20$		$\Delta M \leq 20$	
	Data	MC	Data	MC
Stop	32	30,15±0,963	11	11,13±1,290
Sbottom	0	3,003±0,677	5	5,333±1,211

$\tilde{t}_1$ results







$\tilde{b}_1$ results