Status of Rare τ Decay Searches

all limits at 90% CL

- **Argus '92**

  BR limits on many channels at $\sim 10^{-5}$ level

- **Cleo '94** ($\sim$ 2M $\tau\tau$'s)

  $B(\tau \to 3 \text{ leptons}) < [3.3\text{-}4.3] \times 10^{-6}$

  $B(\tau \to \ell h h) < [4.4\text{-}20.] \times 10^{-6}$

  $B(\tau \to \ell \rho^0/K^{*0}) < [4.2\text{-}11.] \times 10^{-6}$

  – will be updated soon

- **Cleo '97** (4.2 M $\tau\tau$)

  $B(\tau \to e\gamma) < 2.7 \times 10^{-6}$

  $B(\tau \to \mu\gamma) < \underbrace{3.0 \times 10^{-6}}$

  was 4.2×10^{-6} (Cleo'93 1.4M$\tau\tau$)

- **Cleo '97** (4.2 M $\tau\tau$)

$B(\tau \to e\pi^0) < 3.2$		$B(\tau \to \mu\pi^0) < 4.0$	
$B(\tau \to e\eta) < 8.6$		$B(\tau \to \mu\eta) < 9.6$	
$B(\tau \to e\pi^0\pi^0) < 6.5$	$\times 10^{-6}$	$B(\tau \to \mu\pi^0\pi^0) < 14.$	$\times 10^{-6}$
$B(\tau \to e\eta\eta) < 35.$		$B(\tau \to \mu\eta\eta) < 60.$	
$B(\tau \to e\pi^0\eta) < 24.$		$B(\tau \to \mu\pi^0\eta) < 22.$	