Official CLIC multi-TeV physics benchmark processes for detector performance studies[1]

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1. $e^+e^- \to WW\nu\nu/ZZ\nu\nu$, $W/Z \to q\bar{q}$, at 3 TeV (later 1 TeV)(initially 1 data set)
   - W/Z separation
   - particle/energy flow
   - forward region performance
2. $e^+e^- \to Z'$ resonance scan, $Z' \to \mu^+\mu^-$, at 3 TeV
   - beamstrahlung
   - tracking resolution at high energy
3. $e^+e^- \to HH\nu\nu$, $H \to b\bar{b}$ for $\mathrm{m}_H = 120$ GeV and $H \to WW$ for $\mathrm{m}_H = 165$ GeV, at 3 TeV (2 data sets)
   - $H/Z/W$ separation
   - forward region performance
   - b tagging
   - missing E_t
4. $e^+e^- \to b\bar{b}$, $e^+e^- \to t\bar{t}$ at 3 TeV (2 data sets)
   - cross section, assymetry FB, asymmetry LR
   - b-tagging at highest energy
   - jet charge
   - multi-jet/jet algorithms
   - boosted jets
5. $e^+e^- \to \tilde{\mu}_L\tilde{\mu}_L \to \mu^+\mu^-\tilde{\chi}_1^0\tilde{\chi}_1^0$, $e^+e^- \to \tilde{\tau}_1\tilde{\tau}_1 \to \tau^+\tau^-\tilde{\chi}_1^0\tilde{\chi}_1^0$, at high $\tilde{\mu}_L$ and $\tilde{\tau}_1$ mass (such as SUSY E'-point and K'-point), at 3 TeV (2 data sets)
   - forward region performance
   - beamstrahlung
   - τ-finding
   - precision end-point measurements

[1] For the CLIC 500 GeV case, the ILC LoI benchmark list is used.