$\mathcal{T}$-Propagate: $\langle \mu \mid \varphi \rangle \Rightarrow \langle \mu, l \mid \varphi \rangle$ $\quad if$ $\begin{cases} \mu \models_\mathcal{T} l \\ l \text{ is undefined in } \mu \\ l \text{ or } \neg l \text{ occurs in } \varphi \end{cases}$

$\mathcal{T}$-Backjump: $\langle \mu, l, \mu' \mid \varphi, C \rangle \Rightarrow \langle \mu, l' \mid \varphi, C \rangle$ $\quad if$ $\begin{cases} \mu, l, \mu' \models_p \neg C \\ \text{there is some clause } C' \vee l' \text{ s.t. :} \\ \quad \varphi, C \models_\mathcal{T} C' \vee l' \text{ and } \mu \models_p \neg C' \\ l' \text{ is undefined in } \mu \\ l' \text{ or } \neg l' \text{ occurs in } \varphi \text{ or} \\ \quad \text{in } \mu \cup \{l\} \cup \mu' \end{cases}$

$\mathcal{T}$-Learn: $\langle \mu \mid \varphi \rangle \Rightarrow \langle \mu \mid \varphi, C \rangle$ $\quad if$ $\begin{cases} \text{all atoms in } C \text{ occur in } \varphi \\ \varphi \models_\mathcal{T} C \end{cases}$

$\mathcal{T}$-Discharge: $\langle \mu \mid \varphi, C \rangle \Rightarrow \langle \mu \mid \varphi \rangle$ $\quad if$ $\begin{cases} \varphi \models_\mathcal{T} C \end{cases}$

**Figure 10.** The Abstract-DPLL Modulo Theories logical framework from [136]. In the $\mathcal{T}$-Backjump rule, $C$ and $C' \vee l'$ represent the conflicting and the conflict clause respectively.