

---

# DEFEASIBLE CONDITIONAL IMPERATIVES

MAREK SERGOT  
*Imperial College London*  
m.sergot@imperial.ac.uk

---

## Abstract

An alternative to possible world semantics for deontic logic is what is sometimes called ‘the imperatival tradition’: formulas are interpreted not with respect to worlds but to a given set of norms or imperatives. Obligations are then the actions that best fulfil these norms. Proposals go back over many years; there has been renewed interest with the emergence of default reasoning methods, notably as mapped out by Joerg Hansen. I will look at defeasible conditional imperatives of the general form ‘if  $F$  then do  $A!$ ’.  $F$  is an expression representing current facts or beliefs.  $A$  is an expression specifying an action or combination of actions to be done.  $A$  itself can have a conditional structure, as when we say ‘if you do  $A$  then also do/do not do  $B!$ ’. Imperatives are defeasible and may conflict: a (partial) priority ordering can then be used to choose between them. I will look at the representation of such structures as logic programs (of a very general kind) and sketch the logic of imperatives that emerges. I am also interested in the use of this formalism for practical reasoning. I will provide some illustrations from legal and moral reasoning.