

- MATHIEU HOYRUP, *Randomness and the ergodic decomposition.*

LORIA, France.

E-mail: hoyrup@loria.fr.

The interaction between algorithmic randomness and ergodic theory is a rich field of investigation. In this paper we study the particular case of the ergodic decomposition. We give several positive partial answers, leaving the general problem open. We shortly illustrate how the effectivity of the ergodic decomposition allows one to easily extend results from the ergodic case to the non-ergodic one (namely Poincaré recurrence theorem). We also show that in some cases the ergodic measures can be computed from the typical realizations of the process.