$$\mathcal{G} = \frac{ɣ \in {}^{ħ}⊿_m \mathbb{R}_+ \ \mathrm{mb}}{\bigwedge_{M}^{\mathcal{M}} \int_{\mu}^{M} ɣ \leqslant ɭ_M} \ni 0$$

$$\dot{ɣ} \in \mathcal{G} \Longrightarrow ɣ \curlyvee ɣ' \in \mathcal{G}$$

$$E = \frac{h \in ħ}{{}^{h}ɣ \geqslant {}^{h}ɣ'} \Longrightarrow \bigwedge_{M}^{\mathcal{M}} \int_{\mu}^{M} ɣ \curlyvee ɣ' = \int_{\mu}^{M \cap E} ɣ \curlyvee ɣ' + \int_{\mu}^{M \llcorner E} ɣ \curlyvee ɣ' = \int_{\mu}^{M \cap E} ɣ + \int_{\mu}^{M \llcorner E} ɣ' \leqslant ɭ_{M \cap E} + ɭ_{M \llcorner E} = ɭ_M$$

$$\gamma = \bigcurlyvee_{ɣ \in \mathcal{G}} \int_{\mu}^{ħ} ɣ \leqslant ɭ ħ \Longrightarrow \bigvee_{ɣ_n \in \mathcal{G}} \int_{\mu}^{ħ} ɣ_n \rightsquigarrow \gamma \Longrightarrow \tilde{ɣ}_n := \bigcurlyvee_{i}^{n} ɣ_i \nearrow \frac{ɭ}{\mu} \in {}^{ħ}⊿_m \bar{\mathbb{R}}_+$$

$$\mathcal{G} \ni \bigcurlyvee_{i}^{n} ɣ_i \Longrightarrow ɭ_M \geqslant \int_{\mu}^{M} \bigcurlyvee_{i}^{n} ɣ_i \underset{\text{MCT}}{\nearrow} \int_{\mu}^{M} \frac{ɭ}{\mu} \leqslant ɭ_M \Longrightarrow \frac{ɭ}{\mu} \in \mathcal{G}$$

$$\gamma \nwarrow \int_{\mu}^{ħ} \bigcurlyvee_{i}^{n} ɣ_i \nearrow \int_{\mu}^{ħ} \frac{ɭ}{\mu} \Longrightarrow \int_{\mu}^{ħ} \frac{ɭ}{\mu} = \gamma$$

$$\int_\mu^M \frac{\nu}{\mu} = \nu_M$$

$$\text{↯} \bigvee_M^{\mathcal M} \int_\mu^M \frac{\nu}{\mu} < \nu_M \Rightarrow \gamma = \int_\mu^{\hbar}\frac{\nu}{\mu} = \int_\mu^M\frac{\nu}{\mu} + \int_\mu^{\hbar\llcorner M}\frac{\nu}{\mu} < \nu_M + \nu_{\hbar\llcorner M} = \nu_\hbar = \curlyvee_{\mu_F<\infty} \nu_F \Rightarrow \bigvee_{F\in\mathcal M}^{\mu_F<\infty} \nu_F > \gamma = \int_\mu^\hbar \frac{\nu}{\mu} \geqslant \int_\mu^F \frac{\nu}{\mu}$$

$$a := \curlyvee_{M\subset F}^{\nu_M<\infty} \mu_M \leqslant \mu_F < \infty \Rightarrow \bigvee_{M_i\subset F}^{\text{folg}} \nu_{M_i} < \infty \Rightarrow \mu_{M_i} \rightsquigarrow a$$

$$M^j = \bigcup_i^j M_i \subset F \Rightarrow \nu_{M^j} \leqslant \sum_i^j \nu_{M_i} < \infty \Rightarrow \mu_{M^j} \nearrow a \Rightarrow E := \bigcup_j M^j \subset F \Rightarrow \mu_E = a$$

$$\bigwedge_{N\subset F\llcorner E} \nu_N < \infty \Rightarrow \nu_{N\cup M^j} < \infty \Rightarrow \infty > a \geqslant \mu_{N\dot\cup M^j} = \mu_N + \mu_{M^j} \nearrow \mu_N + a \Rightarrow \mu_N = 0$$

$$\bigvee_{\beta>0} \gamma+\beta a < \nu_F = \nu_E + \nu_{F\llcorner E}$$

$$\nu_{M^j} \nearrow \nu_E \Rightarrow \bigvee_j \gamma+\beta a < \nu_{M^j} + \nu_{F\llcorner E}$$

$$\text{sei } P\subset M^j \text{ mit } \bigwedge_M^{\mathcal M} \int_\mu^{M\cap P} \frac{\nu}{\mu} + \beta\mu_{M\cap P} \leqslant \nu_{M\cap P}$$

$$\Rightarrow \int_\mu^M \frac{\nu}{\mu} + \beta_P + \infty_{F\llcorner E} = \int_\mu^M \frac{\nu}{\mu}_{\hbar\llcorner(F\llcorner E)} + \beta_P + \infty_{F\llcorner E} = \int_\mu^{M\llcorner P} \frac{\nu}{\mu}_{\hbar\llcorner(F\llcorner E)} + \int_\mu^{M\cap P}\frac{\nu}{\mu}$$

$$+\beta\mu_{M\cap P} + \infty\mu_{M\cap(F\llcorner E)} \leqslant \nu_{(M\llcorner P)\llcorner(F\llcorner E)} + \nu_{M\cap P} + \infty\mu_{M\cap(F\llcorner E)} \leqslant \nu_{M\llcorner(F\llcorner E)} + \nu_{M\cap(F\llcorner E)} = \nu_M$$

$$\Rightarrow \int_\mu^\hbar \frac{\nu}{\mu} + \beta_P + \infty_{F\llcorner E} \in \mathcal G \Rightarrow \infty > \gamma \geqslant \int_\mu^\hbar \frac{\nu}{\mu} + \beta_P + \infty_{F\llcorner E} = \gamma + \beta\mu_P + \infty\mu_{F\llcorner E}$$

$$\Rightarrow \mu_P = 0 = \mu_{F\llcorner E} \Rightarrow \nu_P = 0 = \nu_{F\llcorner E} \Rightarrow \int_\mu^P \frac{\nu}{\mu} + \beta_P \geqslant \nu_P \underset{\text{LEM}}{\Rightarrow} \int_\mu^{M^j}\frac{\nu}{\mu} + \beta\mu_{M^j} \geqslant \nu_{M^j}$$

$$\Rightarrow \gamma+\beta a \geqslant \int_\mu^{M^j}\frac{\nu}{\mu} + \beta\mu_{M^j} \geqslant \nu_{M^j} = \nu_{M^j} + \nu_{F\llcorner E} > \gamma+\beta a \text{ ↯}$$