

FORMULARIO PT & TLB

$$\begin{aligned} \text{pagesize} &= 2^{\text{offset}} \\ \text{physicalpagenumber} &= \text{physicaladdress} - \text{offset} \\ \text{virtualaddress} &= \text{virtualpagenumber} + \text{offset} \\ \text{offset} &= \log_2(\text{pagesize}) \\ \text{virtualpagenumber} &= \text{tag} + \text{index} \\ \text{index} &= \log_2(\text{set}) \\ \text{set} &= \text{ingressi} / \text{vie} \\ \text{ingressi} &= 2^{\text{virtualpagenumber}} \\ \text{dimPT} &= \text{ingressosize} * \text{ingressi} \\ \text{dimTLB} &= \text{ingressosize} * \text{ingressi} \\ \text{ingressosize} &= \text{physicalpagenumber} + \text{tag} (+\text{bit}) \\ \text{ingressosizeCompletamenteAssociativa} &= \text{physicalpagenumber} + \text{virtualpagenumber} (+\text{bit}) \end{aligned}$$

FORMULARIO CACHE

$$\begin{aligned} \text{offset} &= \log_2(\text{sizeblocco}) \\ \text{index} &= \log_2(\text{set}) \\ \text{set} &= \text{numblocchi} / \text{vie} \\ \text{numblocchi} &= \text{dimdati} / \text{sizeblocco} \\ \text{physicaladdress} &= \text{tag} + \text{index} + \text{offset} \\ \text{dimcache} &= \text{numblocchi} * (\text{tag} + \text{sizeblocco} (+\text{bit})) \end{aligned}$$