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			Chapter 6
ч н т ф н т ф		Then a dia where Φ ,	Discrete Equivalents
$ \begin{array}{c} \mathbf{I} + \mathbf{A}T \\ \mathbf{B}T \\ \mathbf{C} \\ \mathbf{D} \\ \mathbf{D} \\ \mathbf{D} \\ \end{array} $	Forward	, Г , H , a	ints
$(\mathbf{I} - \mathbf{A}T)^{-1}\mathbf{B}T$ $(\mathbf{I} - \mathbf{A}T)^{-1}$ $\mathbf{C}(\mathbf{I} - \mathbf{A}T)^{-1}$ $\mathbf{D} + \mathbf{C}(\mathbf{I} - \mathbf{A}T)^{-1}\mathbf{B}T$	Backward	Then a discrete equivalent at sampling period <i>T</i> will be de $\mathbf{w}(k+1) = \mathbf{\Phi}\mathbf{w}(k) + \mathbf{\Gamma}e(k),$ $u(k) = \mathbf{H}\mathbf{w}(k) + \mathbf{J}e(k),$ where $\mathbf{\Phi}, \mathbf{\Gamma}, \mathbf{H}$, and \mathbf{J} are given respectively as follows:	(tratt
$(\mathbf{I} + \frac{\mathbf{A}T}{2})(\mathbf{I} - \frac{\mathbf{A}T}{2})^{-1}$ $(\mathbf{I} - \frac{\mathbf{A}T}{2})^{-1}\mathbf{B}\sqrt{T}$ $\sqrt{T}\mathbf{C}(\mathbf{I} - \frac{\mathbf{A}T}{2})^{-1}$ $\mathbf{D} + \mathbf{C}(\mathbf{I} - \frac{\mathbf{A}T}{2})^{-1}\mathbf{B}T/2$	Bilinear	Then a discrete equivalent at sampling period <i>T</i> will be described by the equations $\mathbf{w}(k+1) = \mathbf{\Phi}\mathbf{w}(k) + \mathbf{\Gamma}e(k),$ $u(k) = \mathbf{H}\mathbf{w}(k) + \mathbf{J}e(k),$ where $\mathbf{\Phi}$, $\mathbf{\Gamma}$, \mathbf{H} , and \mathbf{J} are given respectively as follows:	(tratto da Franklin, Powell, Workman '98)
		by the equations	kman '98)