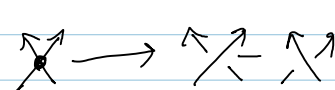
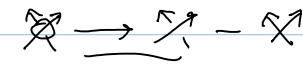



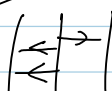


# Feb 8 - Review of F.T. Invariants and Expansions

February-06-12  
7:42 PM

$u \xrightarrow{\quad} V \xrightarrow{\quad} W$ $uB_n = \langle \sigma_i : \begin{matrix} \sigma_1 \sigma_2 \sigma_1 = \\ \sigma_2 \sigma_1 \sigma_2 = \\ \sigma_3 \sigma_1 = \sigma_1 \sigma_3 \end{matrix} \rangle$ $PuB_n = \ker(\sigma : uB_n \rightarrow S_n)$	$VB_n = S_n \times PuB_n$ $PuB_n = \langle \sigma_{ij} : \begin{matrix} \sigma_{12} \sigma_{13} \sigma_{23} = \sigma_{23} \sigma_{13} \sigma_{12} \\ \sigma_{12} \sigma_{34} = \sigma_{34} \sigma_{12} \end{matrix} \rangle$	$wB_n = S_n \times PuB_n$ $PwB_n = PuB_n / \sigma_{12} \sigma_{13} = \sigma_{13} \sigma_{12}$
	 $\overline{\sigma_{ij}} = \sigma_{ij} - 1$	<p>same</p>
<p><math>n</math>-sing <math>n+1</math> sing <math>I^2</math> <math>I^{2+1}</math></p>  <p>90° S</p>  <p>H</p>	 <p>90° S</p>  <p><math>T \langle a_{ij} \rangle</math></p> <p>H <math>\rightarrow  z  +  k </math></p>	<p>90° S</p> <p>same</p>
<p>rels</p>	<p>rels</p> $(\overline{\sigma_{ij}} + 1)(\overline{\sigma_{ik}} + 1)(\overline{\sigma_{jk}} + 1) = (\overline{\sigma_{jk}} + 1)(\overline{\sigma_{ik}} + 1)(\overline{\sigma_{ij}} + 1)$ $\Downarrow$ $a_{12} a_{13} a_{23} = a_{23} a_{13} a_{12}$ $(\overline{\sigma_{ij}} + 1)(\overline{\sigma_{kl}} + 1) = \dots$	<p>rels</p> $+ a_{ij} a_{ik} = a_{ik} a_{ij}$ <p>"TC"</p>
$A^u$	$A^v$	$A^w$
<p><math>\mathbb{Z}</math>: non-hom: hom: use <math>K\mathbb{Z}</math></p>	<p>non-hom: Peter Lee hom: none.</p>	<p>hom: <math>\sigma_{ij} \mapsto e^{a_{ij}}</math></p> 