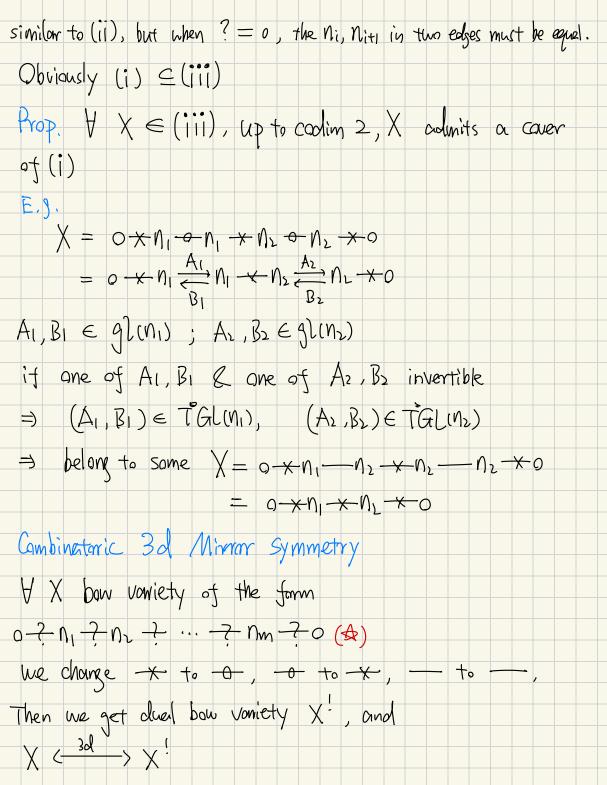
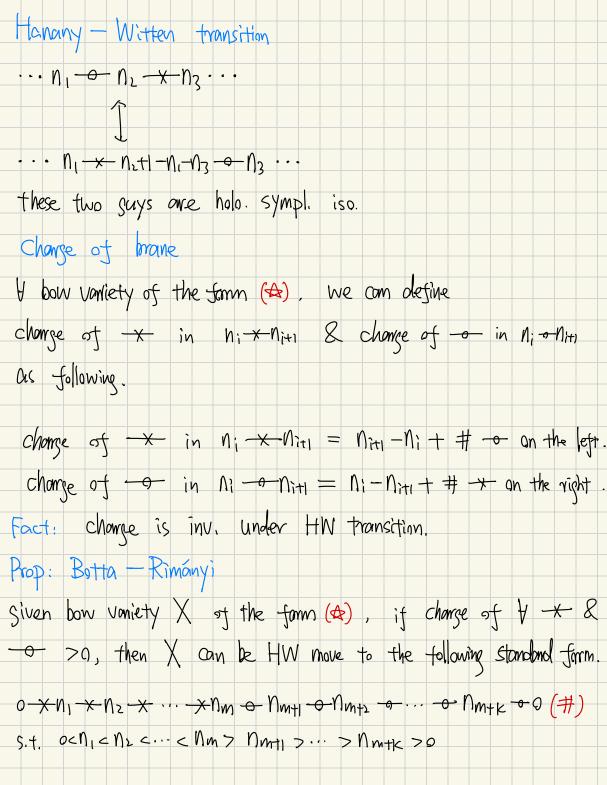


	puileling black	
(i)	two way part	
n	$-$ m: $T^*Hom(C^n, C^m)$	
	triangle port B1 B2	
N	$\times m: C^n \xrightarrow{A} C^m$	
ς ,·		
,		
	$\bigcirc \downarrow V \neq C^m $ s.t. $InAt Ima = V \& B(V) = V$	
	3 \$ 0 \ V \ C \ s.t. \ V \ \ kerb \ \ kerb \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
	idenitity D. D.	
	Q^{B_1} Q^{B_2}	
	$n-n: \mathbb{C}^n \xrightarrow{A} \mathbb{C}^n$	
	5-1, D B2A-AB1=0	
	② A inv. (cylinder)	
	⇒) n — n = TGL(n) cidentity in Mome - Tochika	»WG
	TQFT)	

Prop. $On \times m \cong GLm(C) \times Scn, mn)$ (when n < m) similar result also holds for n>m. ②n×n≥TGLncc)×TCn 2 Sluing Construction we define n₁ × n₂ × n₃ as $n_1 \times n_2 \times n_2 \times n_3 //GL_{n_2}(\mathbb{C})$ Similarily define n, xn2 -n3 $N_1 - ON_2 - N_3$ Fact. n xm is hola. sympl. GLn(C) Qn-xm GGln(C), two mament maps given by B, & B2 So we com write n, x n2 x n3 as BIC MI AI BICMS AL BICMS by Tai by Taz em. X hola. sympl. X x TG // G = X as hola. sympl.

 \Rightarrow $h \times m - m \cong n \times m$ $N - m - m \cong n - m$ Speice cases of bow vowleties (i) 0 * N1 * N2 * · · · * Nm * 0 affine laumon spaces (handson quiver varieties) i.e. moduli of based national maps: $(\mathbb{P}', \infty) \xrightarrow{f} (G_{Lm}(\mathbb{C})/B$, standard flag) s.+ def=(11, , nm) (ii) Type A Nokajimen quiver varieties: 0-0-N1-7-N2-7-11-7-Nm-00 here? can be x or o, but when ?=x, the Ni, Nitl in two edges must be equal. $=) n \times n / (GLn(C)) = TC = In (framing)$ in general $n \times n \times \dots \times n \cong (TGLn(C))^m \times (T^*C^n)^m / (GLn(C))^m$ $\# '' \times '' = m \qquad \cong (T^*C^n)^m = \lim_{n \to \infty} \frac{1}{n}$ (111) Some Coulomb branches 0 × N1 3 N2 3 - - 3 Nm × 0





here the pointition of P is given by (n, n2-n, ..., nm-nm-1) This Prop. Can be understood as following; finite type A Netajina quiver varieties. We know 3d Mirmor of (Sz voniety) MAOSX is NxnSx, also a Sz voniety. here \mathcal{N}_{λ} , $\mathcal{N}_{\lambda'}$ once nilpotent orbit closures, S_{λ} , $S_{\lambda'}$ once sladowy slices. The key ingredient of this mirror phenomenon is nilpotent orbits closure 1:1 Sladowy slices However, it we resolve Nx, we lost such 1 to 1 correspondence, as a sympl. Singularity may admits many sympl. nesolations. So we need to extend to notion of sladaux slices. Matrices tree description of such extention: Sladany slices -> slz nepr. on q extended Sladamy slices (12 repr. (e, f, h) on 9; SIz repr. (e_2,f_2,h_1) on g', g'= lie algebra of id component of $Z_G(e_2,f_2,h_1)$;

it's easy to see (#) = TG/P X S(nm-nmt1, nmt1-nmt1, ..., nmtk)