

elementary invariant polynomials.

□ Since <sup>all</sup> coefficients of  $\chi t^i$ 's are symmetric, and  $\chi_t(A)$  is <sup>the</sup> symmetric in  $\lambda_1, \dots, \lambda_n$ .  $\square$

The Todd polynomials  $Td_i$  are then defined by

$$\frac{\det A}{\det(I - e^{-tA})} = (-1)^n t^{-n} \left\{ \sum_i Td_i(P^1(A), \dots, P^i(A)) t^i \right\}.$$

Now we may express the Lefschetz fixed-point formula as applied to  $v$  and  $f_t$  by

$$\begin{aligned} \chi(O_M) &= \sum_{v(p)=0} \frac{1}{\det A_p} \cdot \frac{\det A_p}{\det(I - e^{tA_p})} \\ &= (-1)^n t^{-n} \sum_i \left\{ \sum_{v(p)=0} (-1)^i \frac{Td_i(P^1(A_p), \dots, P^i(A_p))}{\det A_p} \right\} t^i. \end{aligned}$$

$$\square \quad \chi(O_M) = \sum_{v(p)=0} \frac{1}{\det A_p} \cdot \frac{\det A_p}{\det(I - e^{tA_p})} \quad \text{by P 436}$$

$$\begin{aligned} &= \sum_{v(p)=0} \frac{1}{\det A_p} (-1)^n (-t)^{-n} \left\{ \sum_i Td_i(P^1(A_p), \dots, P^i(A_p)) t^i \right\} \\ &= \sum_{v(p)=0} \frac{1}{\det A_p} t^{-n} \left\{ \sum_i (-1)^i Td_i(P^1(A_p), \dots, P^i(A_p)) t^i \right\} \\ &= \sum_{v(p)=0} \sum_i t^{-n} (-1)^i \frac{Td_i(P^1(A_p), \dots, P^i(A_p))}{\det A_p} t^i \end{aligned}$$