

CP.S. 12/5/14

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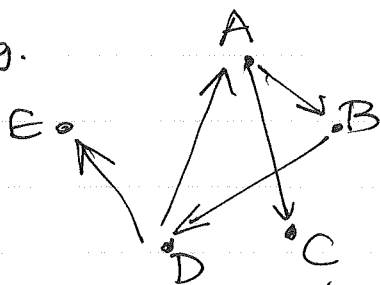
Rank College Football Teams

$V = \# \text{ of teams} = \# \text{ of vertices}$

$g = \# \text{ of games played} = \# \text{ of edges}$

$r_i = \text{rating of team } i, 0 \leq r_i \leq 1$

e.g.



$$\mapsto (a-b+1)(b-d+1)(d-a+1) \\ (d-e+1)(a-c+1)$$

Want to compute

$$\int_{[0,1]^V} \dots \int_{[0,1]^V} r_i \prod_{k=1}^g (w_k - l_k + 1) \quad \left/ \quad \int_{[0,1]^V} \dots \int_{[0,1]^V} \prod_{k=1}^g (w_k - l_k + 1) \right. \leftarrow$$

where edge for game k goes $w_k \rightarrow l_k$

$V \approx 100?$

$g \approx 700?$

How to compute (it) efficiently?