

## Exercises:

### Sheet 12

Ex1: Assume  $G$  does not have one end.  
Prove that  $p_u = 1$ .

Ex2: Prove that  $p_c \leq \frac{1}{1+\phi}$ ,

and  $p_u \geq \frac{1}{e^d}$ .

Ex3: Prove that for  $d$  large enough

$$p_c(\mathbb{T}^d \times \mathbb{Z}) < p_u(\mathbb{T}^d \times \mathbb{Z}).$$