

## CPA (Practical Work 4)

### PageRank

#### **Binôme:**

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#### **Exercice 2**

A partir d'une dizaine d'itération on commence à converger.

Nous avons calculé le PageRank avec et sans ré-indexation des sommets isolés.

Nous avons un temps d'exécution de 19 secondes avec la réindexation.

#### **Sans ré-indexation:**

##### **Meilleurs rank:**

3434750 0.00195336 United States

31717 0.00085449 United Kingdom

11867 0.00073234 Germany

36165 0.00073116 2007

36164 0.00072889 2006

##### **Plus mauvais rank: (il est a noté que les ranks 0 ne sont pas comptés)**

1000340 0.00000009 Evelina

1000223 0.00000009 MLG

10001676 0.00000009 Multi-Application Survivable Tether

10001052 0.00000009 Schrammelmusik

100002 0.00000009 Berney Arms

#### **Avec ré-indexation:**

##### **Meilleurs rank:**

3434750

0.003222854138181376320443360938838850415777415037155151367187500000  
0000000000000000

United States

72760

0.001275441176009159708823470502636610035551711916923522949218750000  
0000000000000000

Square kilometre

128608

0.001239593980584773958222855050337329885223880410194396972656250000  
0000000000000000

Population density

31717

0.001150477754109414897307206437915283459005877375602722167968750000  
0000000000000000

United Kingdom

6889

0.001140601448760154021724866346687576879048720002174377441406250000  
0000000000000000

Census

**Plus mauvais rank:**

6778877

0.000000900021884237382929178452641016949797858615056611597537994384  
7656250000000000

Sexual conflict

20732

0.000000900021388985373902805208791433333459508503437973558902740478  
5156250000000000

Multiple document interface

10640301

0.000000900015332842779984296073536587101671102573163807392120361328  
1250000000000000

Menabe

91701

0.000000900013939487424175154282358912727346478277468122541904449462  
8906250000000000

Pickett County, Tennessee

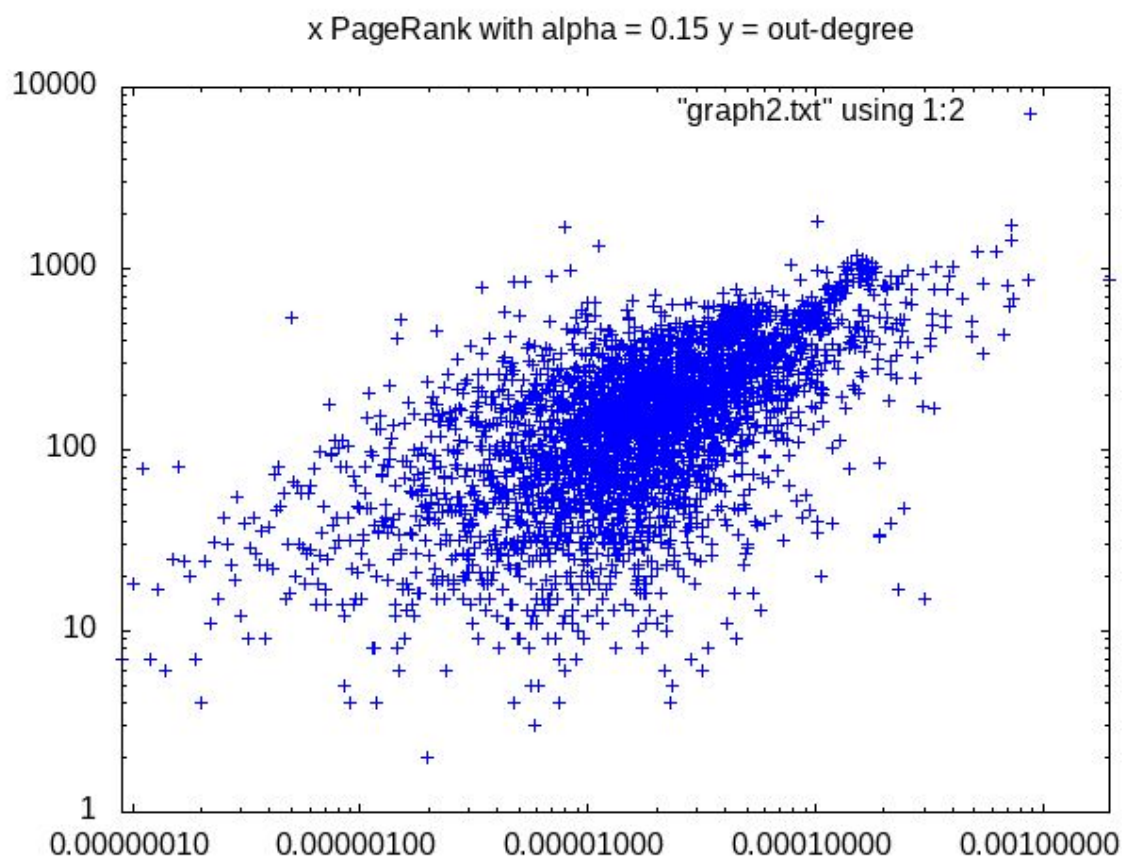
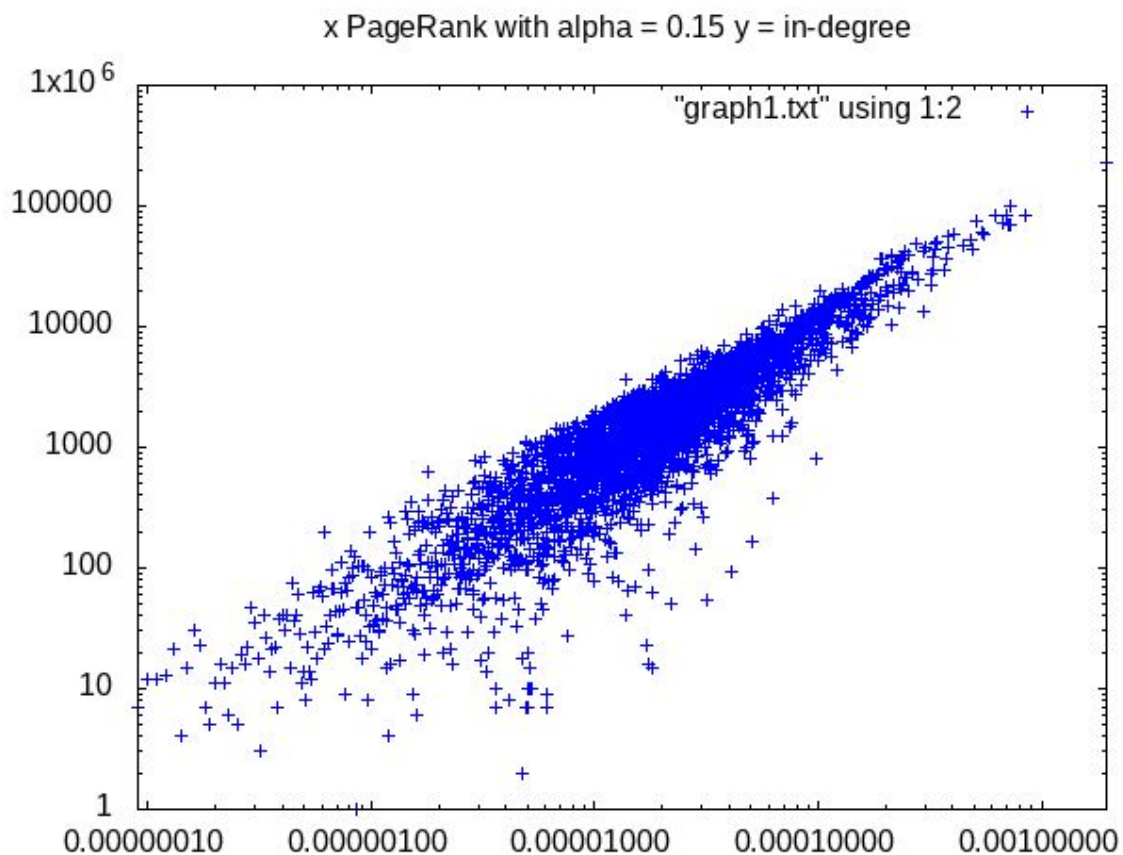
35487

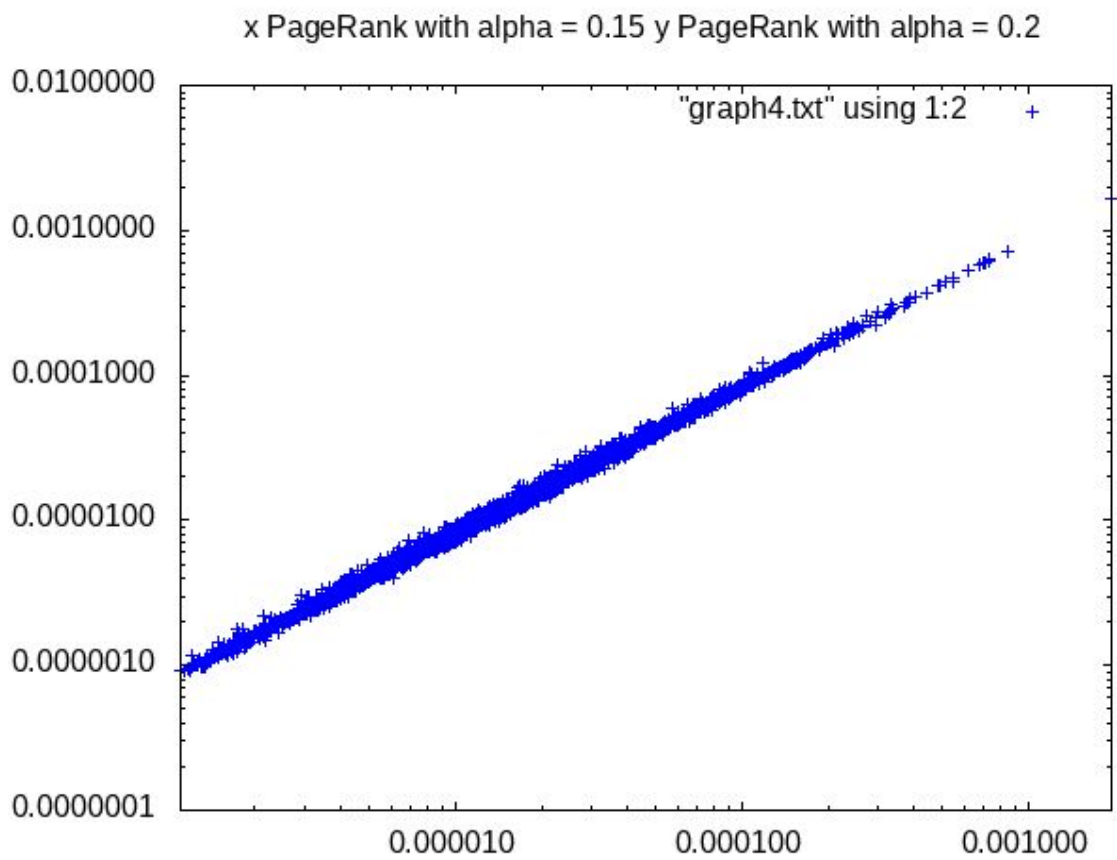
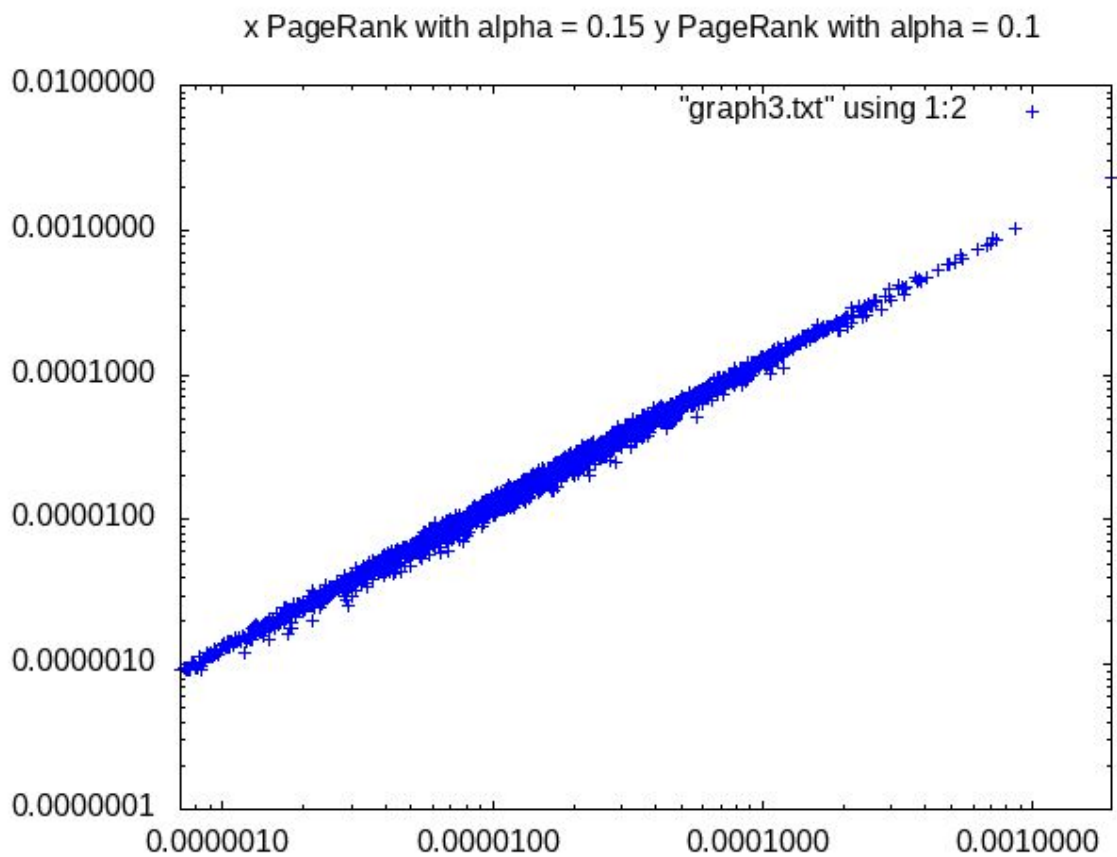
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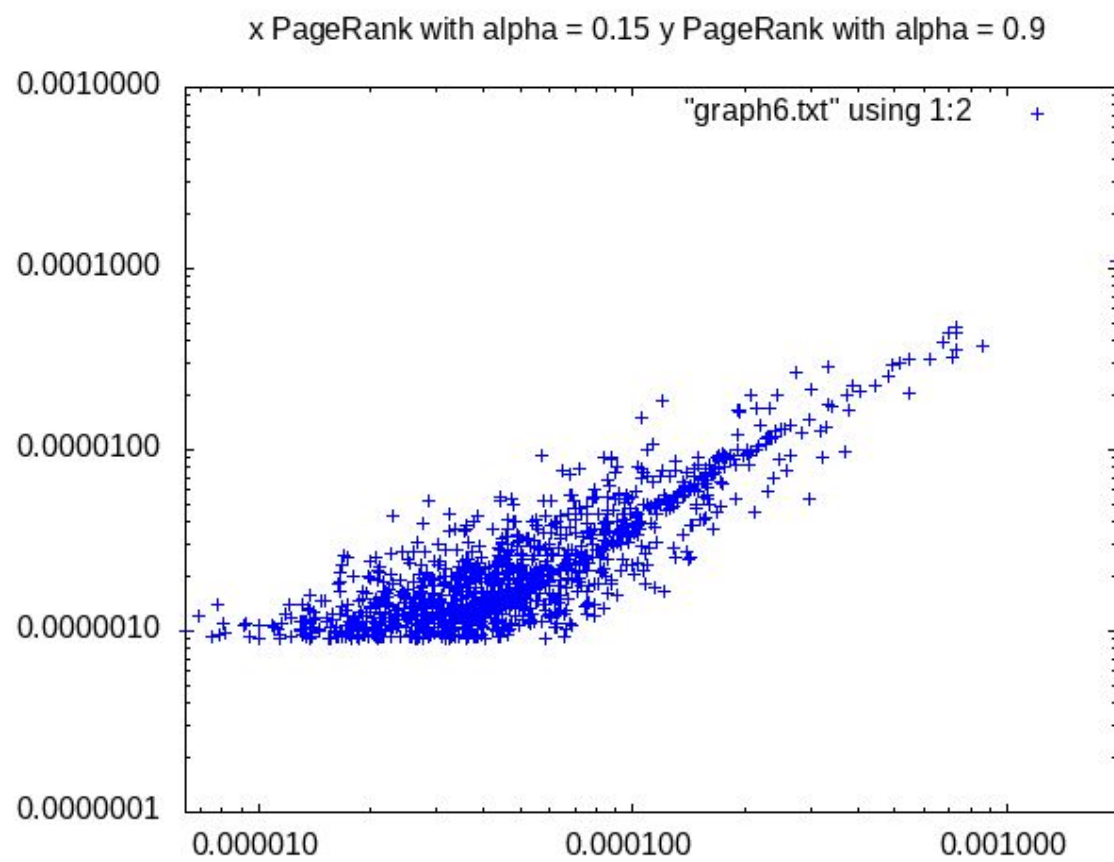
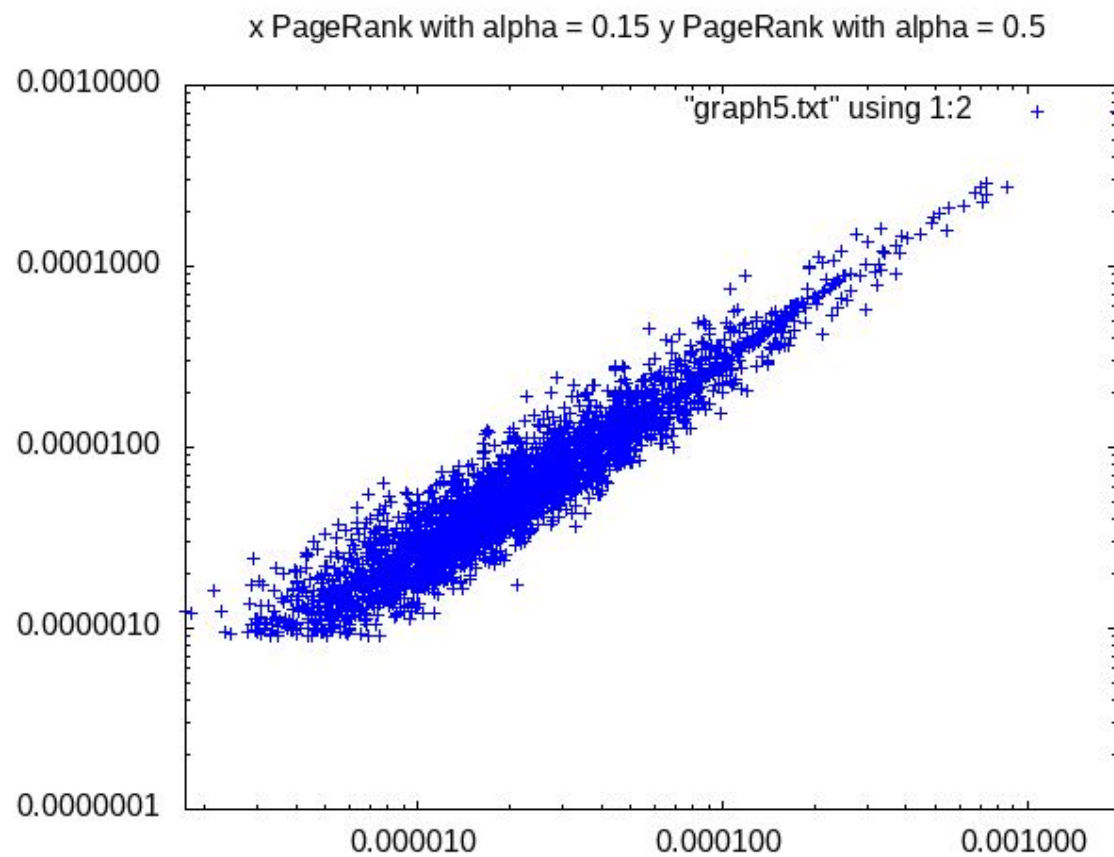
157

### **Exercice 3**

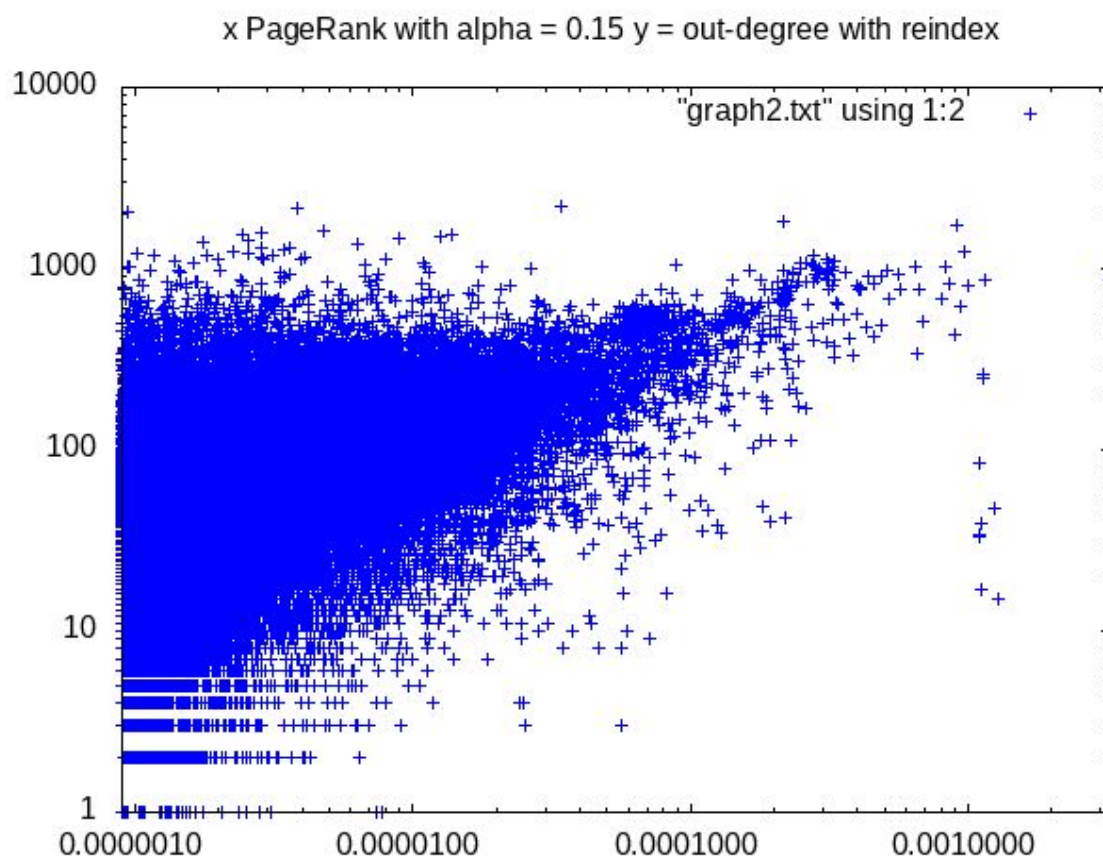
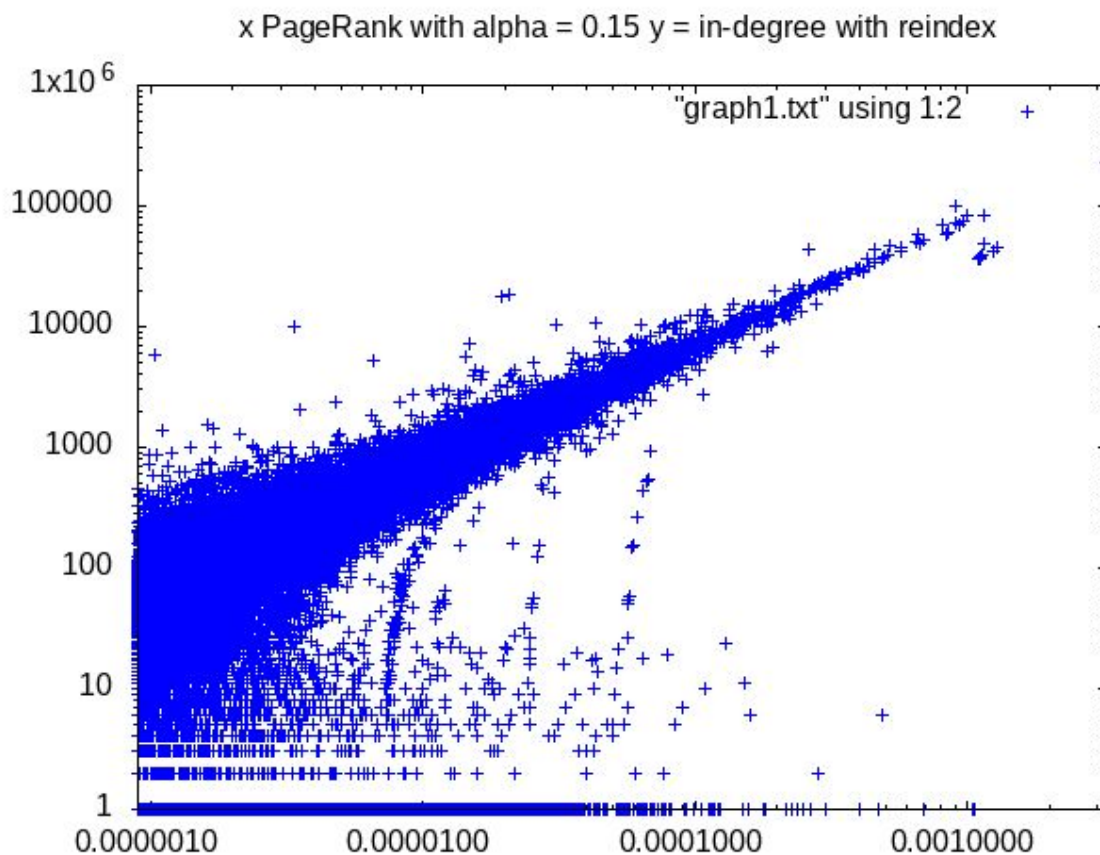
Voici les courbes sans ré-indexation (échelle logarithmique):





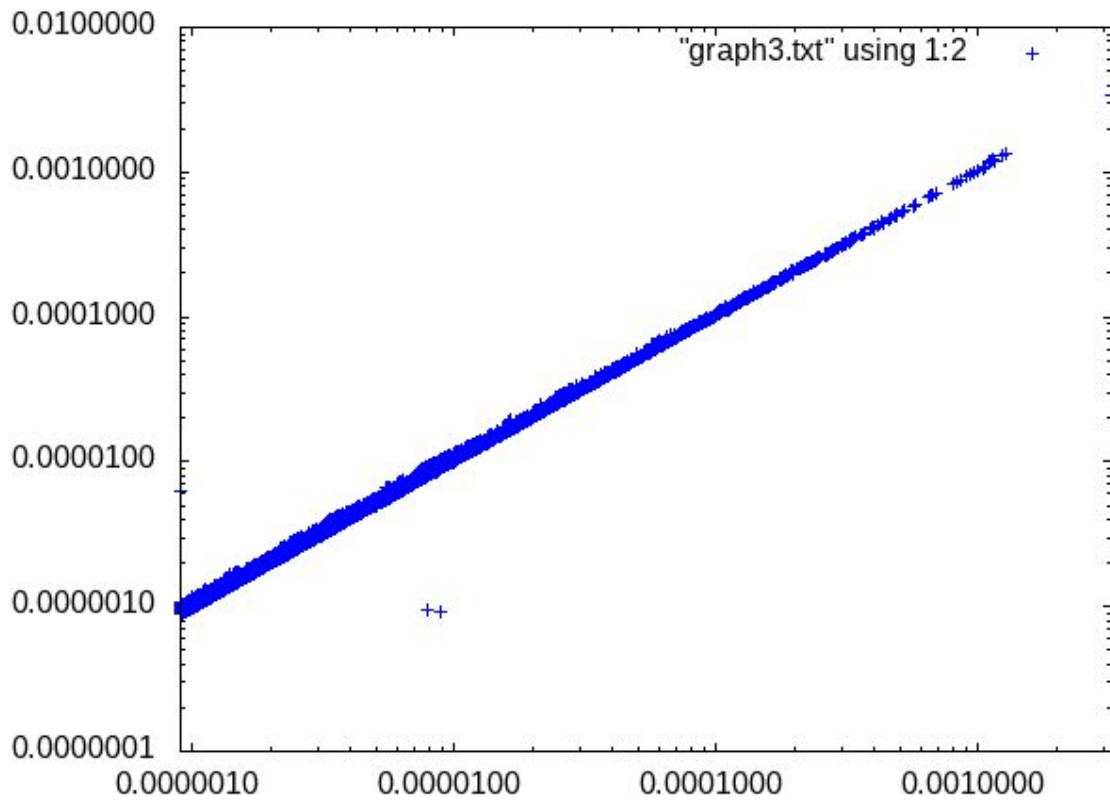


Avec ré-indexation:

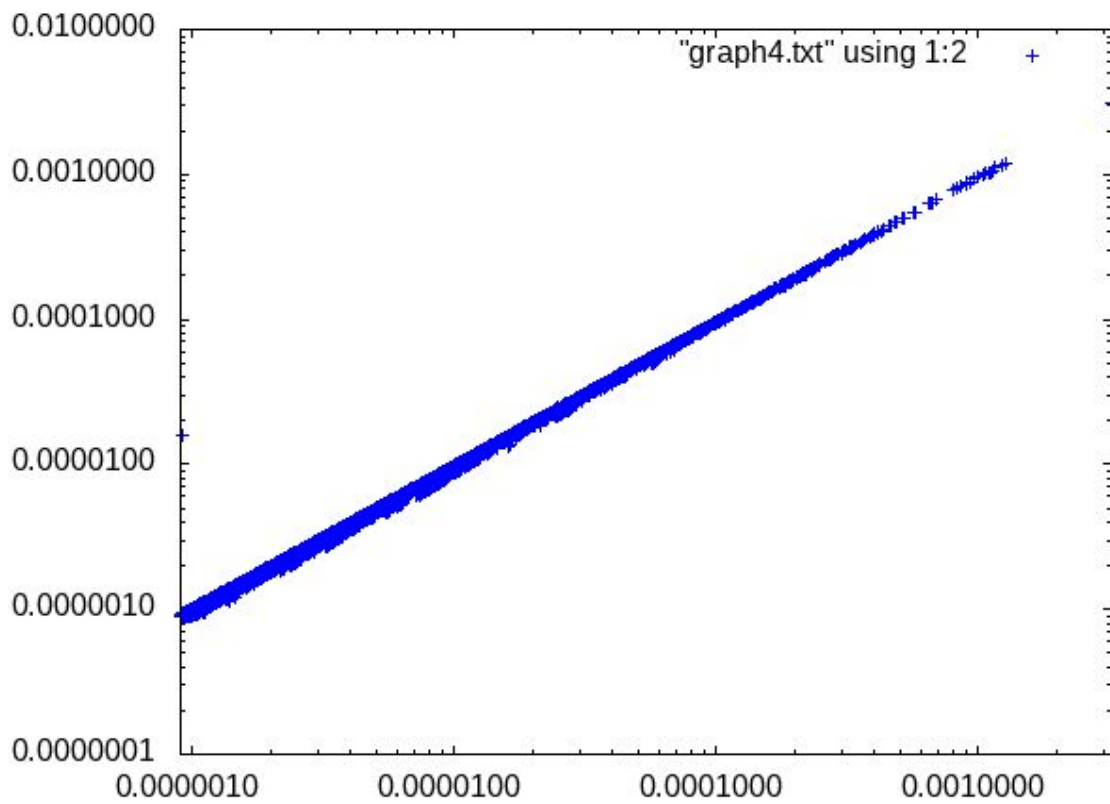




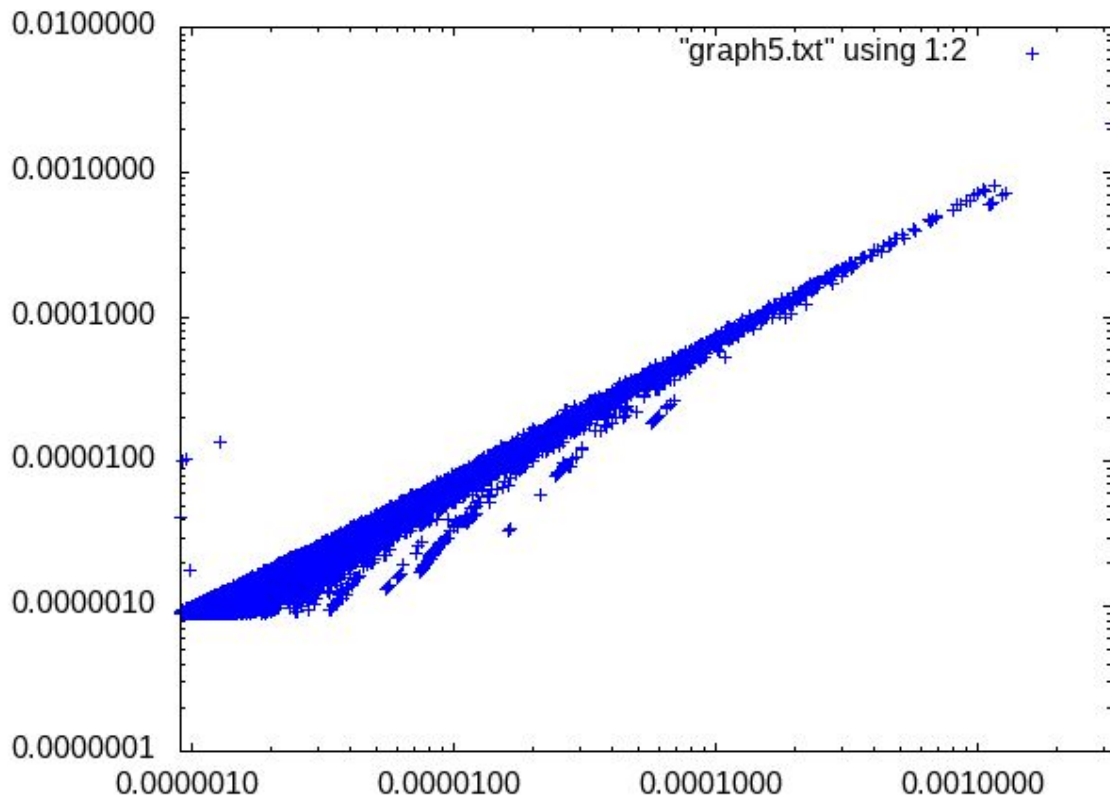
x PageRank with alpha = 0.15 y PageRank with alpha = 0.1 with reindex



x PageRank with alpha = 0.15 y PageRank with alpha = 0.2 with reindex



x PageRank with alpha = 0.15 y PageRank with alpha = 0.5 with reindex



x PageRank with alpha = 0.15 y PageRank with alpha = 0.9 with reindex

