Whole Novel

(Unweighted **edge betweenness** with manual corrections)

# Group 1

|  |  |  |
| --- | --- | --- |
| CA | Curé, Digne | 1 |
| CB | Mountain curé | 1 |
| CD | Condemned to death | 1 |
| CL | Countess de Lô | 1 |
| CV | Cravatte | 1 |
| GE | Géborand | 1 |
| GG | Conventionist | 1 |
| HD | Hospital director | 1 |
| MB | Mlle Baptistine | 1 |
| MC | Champtercier | 1 |
| ME | Mme Magloire | 1 |
| MH | Chastelar mayor | 1 |
| MS | Mayor of Senez | 1 |
| MY | Bishop Myriel | 1 |
| NP | Napoleon | 1 |
| SB | Shepherd boy | 1 |
| SN | Senator | 1 |
| TR | Three gendarmes | 1 |
| VB | Mme Boischevron | 1 |

# Group 2

|  |  |  |
| --- | --- | --- |
| AA | Arras lawyer | 2 |
| BC | Booking clerk | 2 |
| BH | Stable boy | 2 |
| BI | Bailiff | 2 |
| BR | Brevet | 2 |
| BS | Boatswain | 2 |
| BW | Wheelright | 2 |
| CC | Cochepaille | 2 |
| CE | Arras coachman | 2 |
| CF | Montfermeuil coachman | 2 |
| CH | Champmathieu | 2 |
| CI | Cashier | 2 |
| CK | Defense counsel | 2 |
| CN | Chenildieu | 2 |
| DH | Duc d'Havré | 2 |
| DM | Dowager M-s-M | 2 |
| DO | Foreman, Grasse | 2 |
| GD | Gendarme, Digne | 2 |
| IK | Innkeeper's wife | 2 |
| IS | Isabeau | 2 |
| JD | Jailer, Digne | 2 |
| JU | Judge | 2 |
| JV | Jean Valjean | 2 |
| KA | Toll keeper | 2 |
| LP | Louis-Philippe | 2 |
| LR | Arras hotel keeper | 2 |
| MD | Marie-Claude | 2 |
| MR | Marquise de R | 2 |
| PA | Prosecuting attorney | 2 |
| PD | Digne peasant | 2 |
| PE | Peasant's wife | 2 |
| PG | Petit Gervais | 2 |
| PH | Priest, Digne | 2 |
| PO | Portress, M-s-M | 2 |
| PR | Prison guard | 2 |
| PS | Porter, r. de l'Ouest | 2 |
| PT | Postillion | 2 |
| RA | Arras resident | 2 |
| RM | Road mender | 2 |
| SC | M. Scaufflaire | 2 |
| SD | Scaufflaire's wife | 2 |
| SE | Saint Pol Servant girl | 2 |
| SO | Soldiers | 2 |
| SW | Sewermen | 2 |
| TE | German teamster | 2 |
| TS | Toussaint | 2 |
| WH | Old woman | 2 |
| WI | Old woman's son | 2 |

# Group 3

|  |  |  |
| --- | --- | --- |
| FM | Fisherman, Digne | 3 |
| JL | Labarre | 3 |
| KB | Kitchen boy | 3 |
| KT | Tavern keeper | 3 |

# Group 4

|  |  |  |
| --- | --- | --- |
| JM | Valjean's sister | 4 |
| JN | Sister's son | 4 |
| KD | Door keeper | 4 |

# Group 5

|  |  |  |
| --- | --- | --- |
| BL | Blachevelle | 5 |
| BM | Bamatabois | 5 |
| DA | Dahlia | 5 |
| DS | Doctor M-s-M | 5 |
| FA | Fameuil | 5 |
| FB | Barber | 5 |
| FD | Furniture seller | 5 |
| FL | Landlord | 5 |
| FN | Fantine | 5 |
| FT | Tholomyès | 5 |
| FV | Favourite | 5 |
| ID | Itinerant dentist | 5 |
| LI | Listolier | 5 |
| MT | Marguerite | 5 |
| NT | Thénardiers' neighbor | 5 |
| SF | Factory supervisor | 5 |
| SM | Hospital servant | 5 |
| SP | Sister Perpétue | 5 |
| SS | Sister Simplice | 5 |
| WB | Waiter | 5 |
| ZE | Zephine | 5 |

# Group 6

|  |  |  |
| --- | --- | --- |
| AZ | Azelma | 6 |
| BB | Babet | 6 |
| BJ | Brujon | 6 |
| BZ | Boulatruelle | 6 |
| CJ | Javert's coachman | 6 |
| DU | Deuxmilliards | 6 |
| EP | Eponine | 6 |
| GF | Guard, La Force | 6 |
| GU | Gueulemer | 6 |
| JA | Javert | 6 |
| LL | Landlady, Gorbeau | 6 |
| MO | Montparnasse | 6 |
| PC | Porter, barricade | 6 |
| PN | Panchaud | 6 |
| PZ | Peddler | 6 |
| QU | Claquesous | 6 |
| SG | Police sergeant M-s-M | 6 |
| TH | Thénardier | 6 |
| TM | Mme Thénardier | 6 |
| VI | Mme Victurnien | 6 |

# Group 7

|  |  |  |
| --- | --- | --- |
| BA | Bahorel | 7 |
| BK | Paris baker | 7 |
| BO | Bossuet | 7 |
| BU | Mme Burgon | 7 |
| CG | Parisian coachman | 7 |
| CM | Combeferre | 7 |
| CO | Cosette | 7 |
| CP | Card player | 7 |
| CR | Courfeyrac | 7 |
| CW | Concierge, Verrerie | 7 |
| DN | Dandy | 7 |
| DR | Drunk coachman | 7 |
| EN | Enjolras | 7 |
| FE | Feuilly | 7 |
| GA | Gavroche | 7 |
| GB | Gibolette | 7 |
| GL | Poor girl | 7 |
| GN | Gardener | 7 |
| GS | Secondhand dealer | 7 |
| GT | Grantaire | 7 |
| GV | Government troops | 7 |
| HL | Mme Hucheloup | 7 |
| IW | Insurgent workers | 7 |
| JO | Joly | 7 |
| JP | Prouvaire | 7 |
| MA | Marius | 7 |
| ML | Matelotte | 7 |
| MM | M. Mabeuf | 7 |
| MU | Minister of agriculture | 7 |
| MW | Minister's wife | 7 |
| NA | Navet | 7 |
| PL | Mother Plutarch | 7 |
| RP | Ragpicker | 7 |
| SI | Sergeant, Imprimérie | 7 |
| SR | Marius's servant | 7 |
| TC | Three concierges | 7 |
| WA | Anonymous worker | 7 |

# Group 8

|  |  |  |
| --- | --- | --- |
| FF | Fauchelevent | 8 |
| GR | Gribier | 8 |
| MI | Mother Innocent | 8 |

# Group 9

|  |  |  |
| --- | --- | --- |
| AM | Abbé Mabeuf | 9 |
| DV | Doctor, Vernon | 9 |
| GP | Colonel Pontmercy | 9 |
| MP | Mme Pontmercy | 9 |
| WP | Pontmercy's servant | 9 |

# Group 10

|  |  |  |
| --- | --- | --- |
| BQ | Basque | 10 |
| BT | Baroness de T | 10 |
| CX | Concierge, Gillenormand | 10 |
| DG | Doctor, Gillenormand | 10 |
| GI | M. Gillenormand | 10 |
| LA | Count Lamothe | 10 |
| MG | Mlle Gillenormand | 10 |
| MV | Mlle Vaubois | 10 |
| NI | Nicolette | 10 |
| TG | Théodule | 10 |

# Group 11

|  |  |  |
| --- | --- | --- |
| BF | Babet's girlfriend | 11 |
| BG | Paris barber | 11 |
| BX | Bourgeois man | 11 |
| BY | Bourgeois son | 11 |
| MN | Magnon | 11 |
| OS | Old soldier | 11 |
| XA | Older child | 11 |
| XB | Younger child | 11 |

# Group 12

|  |  |  |
| --- | --- | --- |
| CY | Concierge, l'Homme Armé | 12 |
| CZ | Concierge's husband | 12 |
| DJ | Doctor, Valjean | 12 |

Part 1

Unweighted **spin-glass** (gamma=1, spins=100) with manual corrections

# Group 1

|  |  |  |
| --- | --- | --- |
| AA | Arras lawyer | 1 |
| BC | Booking clerk | 1 |
| BH | Stable boy | 1 |
| BW | Wheelright | 1 |
| CE | Arras coachman | 1 |
| CI | Cashier | 1 |
| DM | Dowager M-s-M | 1 |
| DO | Foreman, Grasse | 1 |
| DS | Doctor M-s-M | 1 |
| FF | Fauchelevent | 1 |
| FM | Fisherman, Digne | 1 |
| GD | Gendarme, Digne | 1 |
| IK | Innkeeper's wife | 1 |
| IS | Isabeau | 1 |
| JA | Javert | 1 |
| JD | Jailer, Digne | 1 |
| JL | Labarre | 1 |
| JV | Jean Valjean | 1 |
| KB | Kitchen boy | 1 |
| KT | Tavern keeper | 1 |
| LR | Arras hotel keeper | 1 |
| MD | Marie-Claude | 1 |
| MR | Marquise de R | 1 |
| PD | Digne peasant | 1 |
| PE | Peasant's wife | 1 |
| PG | Petit Gervais | 1 |
| PH | Priest, Digne | 1 |
| PO | Portress, M-s-M | 1 |
| PR | Prison guard | 1 |
| PT | Postillion | 1 |
| RA | Arras resident | 1 |
| RM | Road mender | 1 |
| SC | M. Scaufflaire | 1 |
| SD | Scaufflaire's wife | 1 |
| SE | Saint Pol Servant girl | 1 |
| SG | Police sergeant M-s-M | 1 |
| SM | Hospital servant | 1 |
| SP | Sister Perp√©tue | 1 |
| SS | Sister Simplice | 1 |
| TE | German teamster | 1 |
| WH | Old woman | 1 |
| WI | Old woman's son | 1 |

# Group 2

|  |  |  |
| --- | --- | --- |
| BL | Blachevelle | 2 |
| BM | Bamatabois | 2 |
| DA | Dahlia | 2 |
| FA | Fameuil | 2 |
| FB | Barber | 2 |
| FD | Furniture seller | 2 |
| FL | Landlord | 2 |
| FN | Fantine | 2 |
| FT | Tholomy√®s | 2 |
| FV | Favourite | 2 |
| ID | Itinerant dentist | 2 |
| LI | Listolier | 2 |
| MT | Marguerite | 2 |
| NT | Th√©nardiers' neighbor | 2 |
| SF | Factory supervisor | 2 |
| WB | Waiter | 2 |
| ZE | Zephine | 2 |

# Group 3

|  |  |  |
| --- | --- | --- |
| AZ | Azelma | 3 |
| CO | Cosette | 3 |
| EP | Eponine | 3 |
| TH | Th√©nardier | 3 |
| TM | Mme Th√©nardier | 3 |
| VI | Mme Victurnien | 3 |

# Group 4

|  |  |  |
| --- | --- | --- |
| CA | Cur√©, Digne | 4 |
| CB | Mountain cur√© | 4 |
| CD | Condemned to death | 4 |
| CL | Countess de L√¥ | 4 |
| CV | Cravatte | 4 |
| GE | G√©borand | 4 |
| GG | Conventionist | 4 |
| HD | Hospital director | 4 |
| MB | Mlle Baptistine | 4 |
| MC | Champtercier | 4 |
| ME | Mme Magloire | 4 |
| MH | Chastelar mayor | 4 |
| MS | Mayor of Senez | 4 |
| MY | Bishop Myriel | 4 |
| NP | Napoleon | 4 |
| SB | Shepherd boy | 4 |
| SN | Senator | 4 |
| TR | Three gendarmes | 4 |
| VB | Mme Boischevron | 4 |

# Group 5

|  |  |  |
| --- | --- | --- |
| BI | Bailiff | 5 |
| BR | Brevet | 5 |
| CC | Cochepaille | 5 |
| CH | Champmathieu | 5 |
| CK | Defense counsel | 5 |
| CN | Chenildieu | 5 |
| JU | Judge | 5 |
| PA | Prosecuting attorney | 5 |

# Group 6

|  |  |  |
| --- | --- | --- |
| JM | Valjean's sister | 6 |
| JN | Sister's son | 6 |
| KD | Door keeper | 6 |

Part 2

Unweighted **spin-glass** (gamma=1, spins=100) with manual corrections

# Group 1

|  |  |  |
| --- | --- | --- |
| JA | Javert | 1 |
| SO | Soldiers | 1 |

# Group 2

|  |  |  |
| --- | --- | --- |
| BZ | Boulatruelle | 2 |
| GP | Colonel Pontmercy | 2 |
| PZ | Peddler | 2 |
| TH | Thénardier | 2 |
| TM | Mme Thénardier | 2 |

# Group 3

|  |  |  |
| --- | --- | --- |
| BS | Boatswain | 3 |
| CF | Montfermeuil coachman | 3 |
| CO | Cosette | 3 |
| DH | Duc d'Havré | 3 |
| JV | Jean Valjean | 3 |
| KA | Toll keeper | 3 |
| LL | Landlady, Gorbeau | 3 |
| LP | Louis-Philippe | 3 |

# Group 4

|  |  |  |
| --- | --- | --- |
| AZ | Azelma | 4 |
| EP | Eponine | 4 |
| GA | Gavroche | 4 |

# Group 5

|  |  |  |
| --- | --- | --- |
| FF | Fauchelevent | 5 |
| GR | Gribier | 5 |
| MI | Mother Innocent | 5 |

Part 3

Unweighted **spin-glass** (gamma=1, spins=100)

# Group 1

|  |  |  |
| --- | --- | --- |
| BA | Bahorel | 1 |
| BO | Bossuet | 1 |
| BU | Mme Burgon | 1 |
| CG | Parisian coachman | 1 |
| CM | Combeferre | 1 |
| CO | Cosette | 1 |
| CR | Courfeyrac | 1 |
| EN | Enjolras | 1 |
| GA | Gavroche | 1 |
| GT | Grantaire | 1 |
| JO | Joly | 1 |
| JP | Prouvaire | 1 |
| MA | Marius | 1 |
| PS | Porter, r. de l'Ouest | 1 |
| SR | Marius's servant | 1 |

# Group 2

|  |  |  |
| --- | --- | --- |
| AM | Abbé Mabeuf | 2 |
| DV | Doctor, Vernon | 2 |
| GP | Colonel Pontmercy | 2 |
| MM | M. Mabeuf | 2 |
| MP | Mme Pontmercy | 2 |
| NP | Napoleon | 2 |
| PL | Mother Plutarch | 2 |
| WP | Pontmercy's servant | 2 |

# Group 3

|  |  |  |
| --- | --- | --- |
| AZ | Azelma | 3 |
| EP | Eponine | 3 |
| JV | Jean Valjean | 3 |
| TH | Thénardier | 3 |
| TM | Mme Thénardier | 3 |

# Group 4

|  |  |  |
| --- | --- | --- |
| BT | Baroness de T | 4 |
| GI | M. Gillenormand | 4 |
| LA | Count Lamothe | 4 |
| MG | Mlle Gillenormand | 4 |
| MN | Magnon | 4 |
| MV | Mlle Vaubois | 4 |
| TG | Théodule | 4 |

# Group 5

|  |  |  |
| --- | --- | --- |
| BB | Babet | 5 |
| BJ | Brujon | 5 |
| BZ | Boulatruelle | 5 |
| DU | Deuxmilliards | 5 |
| GU | Gueulemer | 5 |
| JA | Javert | 5 |
| PN | Panchaud | 5 |
| QU | Claquesous | 5 |

Part 4

Unweighted **spin-glass** (gamma=1, spins=100) with manual corrections

# Group 1

|  |  |  |
| --- | --- | --- |
| BB | Babet | 1 |
| BF | Babet's girlfriend | 1 |
| BJ | Brujon | 1 |
| GF | Guard, La Force | 1 |
| GU | Gueulemer | 1 |
| MO | Montparnasse | 1 |
| PC | Porter, barricade | 1 |
| QU | Claquesous | 1 |
| TH | Thénardier | 1 |

# Group 2

|  |  |  |
| --- | --- | --- |
| BA | Bahorel | 2 |
| BO | Bossuet | 2 |
| CM | Combeferre | 2 |
| CP | Card player | 2 |
| CR | Courfeyrac | 2 |
| CW | Concierge, Verrerie | 2 |
| EN | Enjolras | 2 |
| FE | Feuilly | 2 |
| GT | Grantaire | 2 |
| GV | Government troops | 2 |
| JO | Joly | 2 |
| JP | Prouvaire | 2 |
| NA | Navet | 2 |

# Group 3

|  |  |  |
| --- | --- | --- |
| BG | Paris barber | 3 |
| BK | Paris baker | 3 |
| DN | Dandy | 3 |
| DR | Drunk coachman | 3 |
| GA | Gavroche | 3 |
| GL | Poor girl | 3 |
| GS | Secondhand dealer | 3 |
| MN | Magnon | 3 |
| OS | Old soldier | 3 |
| RP | Ragpicker | 3 |
| SI | Sergeant, Imprim√©rie | 3 |
| TC | Three concierges | 3 |
| TM | Mme Th√©nardier | 3 |
| XA | Older child | 3 |
| XB | Younger child | 3 |

# Group 4

|  |  |  |
| --- | --- | --- |
| GB | Gibolette | 4 |
| HL | Mme Hucheloup | 4 |
| ML | Matelotte | 4 |

# Group 5

|  |  |  |
| --- | --- | --- |
| BU | Mme Burgon | 5 |
| CO | Cosette | 5 |
| EP | Eponine | 5 |
| JA | Javert | 5 |
| JV | Jean Valjean | 5 |
| MA | Marius | 5 |
| PS | Porter, r. de l'Ouest | 5 |
| TG | Th√©odule | 5 |
| TS | Toussaint | 5 |

# Group 6

|  |  |  |
| --- | --- | --- |
| GN | Gardener | 6 |
| MM | M. Mabeuf | 6 |
| MU | Minister of agriculture | 6 |
| MW | Minister's wife | 6 |
| PL | Mother Plutarch | 6 |

# Group 7

|  |  |  |
| --- | --- | --- |
| BQ | Basque | 7 |
| GI | M. Gillenormand | 7 |
| MG | Mlle Gillenormand | 7 |

Part 5

Unweighted **spin-glass** (gamma=1, spins=100) without the “island” (XA-XB-BX-BY).

# Group 1

|  |  |  |
| --- | --- | --- |
| BZ | Boulatruelle | 1 |
| CO | Cosette | 1 |
| GI | M. Gillenormand | 1 |
| JV | Jean Valjean | 1 |
| MA | Marius | 1 |
| SW | Sewermen | 1 |

# Group 2

|  |  |  |
| --- | --- | --- |
| AZ | Azelma | 2 |
| CJ | Javert's coachman | 2 |
| EP | Eponine | 2 |
| JA | Javert | 2 |
| TH | Thénardier | 2 |

# Group 3

|  |  |  |
| --- | --- | --- |
| CY | Concierge, l'Homme Armé | 3 |
| CZ | Concierge's husband | 3 |
| DJ | Doctor, Valjean | 3 |

# Group 4

|  |  |  |
| --- | --- | --- |
| BO | Bossuet | 4 |
| CM | Combeferre | 4 |
| CR | Courfeyrac | 4 |
| EN | Enjolras | 4 |
| FE | Feuilly | 4 |
| GA | Gavroche | 4 |
| GT | Grantaire | 4 |
| GV | Government troops | 4 |
| IW | Insurgent workers | 4 |
| JO | Joly | 4 |
| WA | Anonymous worker | 4 |

# Group 5

|  |  |  |
| --- | --- | --- |
| BQ | Basque | 5 |
| CX | Concierge, Gillenormand | 5 |
| DG | Doctor, Gillenormand | 5 |
| MG | Mlle Gillenormand | 5 |
| NI | Nicolette | 5 |

# Group 6 (Isolated group)

|  |  |  |
| --- | --- | --- |
| BX | Bourgeois man | 6 |
| BY | Bourgeois son | 6 |
| XA | Older child | 6 |
| XB | Younger child | 6 |