Further neural reduction of the upper bound on the number of persons using four different monoliths

Soumadeep Ghosh

Kolkata, India

Abstract

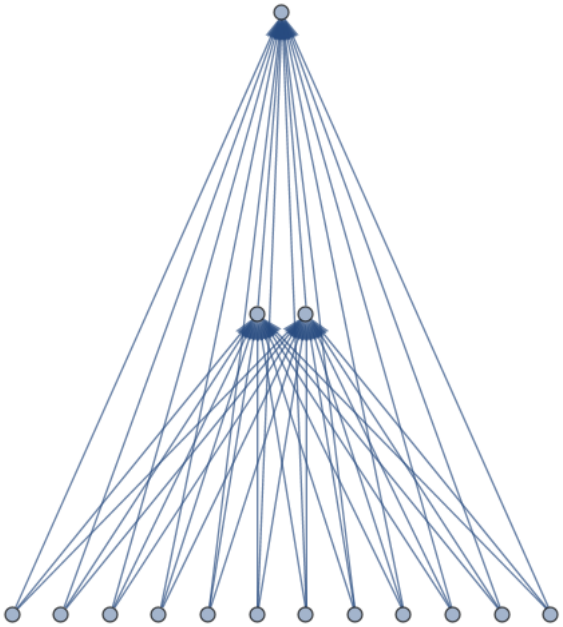
In this paper, I describe further neural reduction of the upper bound on the number of persons using four different monoliths.
The paper ends with "The End"

Introduction

In a previous paper, I've described further neural reduction of the lower and upper bounds on the number of persons using a neural architecture called the monolith.
In this paper, I describe further neural reduction of the upper bound on the number of persons using four different monoliths.

Further neural reduction of the upper bound on the number of persons using the $M_{12,2,1}$ monolith

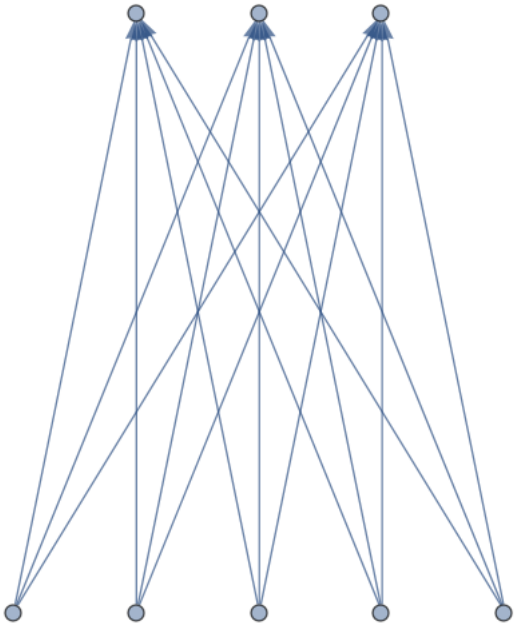
First, we note that $24 = 12 \times 2 \times 1$ and $15 = 12 + 2 + 1$



As before, the $M_{12,2,1}$ monolith is the complete 15-partite graph with the **vertices** representing persons, the **rungs** representing rank and the **upward edges** representing transfer of knowledge to the ranks above.
Since the $M_{12,2,1}$ monolith can have no more than 15 vertices,
the upper bound on the number of persons is reduced to 15.

Further neural reduction of the upper bound on the number of persons using the $M_{5,3}$ monolith

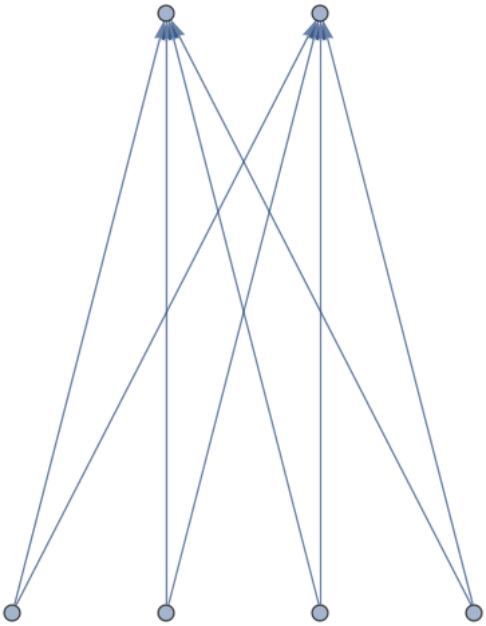
Second, we note that $15 = 5 \times 3$ and $8 = 5 + 3$



As before, the $M_{5,3}$ monolith is the complete 8-partite graph with the **vertices** representing persons, the **rungs** representing rank and the **upward edges** representing transfer of knowledge to the ranks above.
Since the $M_{5,3}$ monolith can have no more than 8 vertices,
the upper bound on the number of persons is reduced to 8.

Further neural reduction of the upper bound on the number of persons using the $M_{4,2}$ monolith

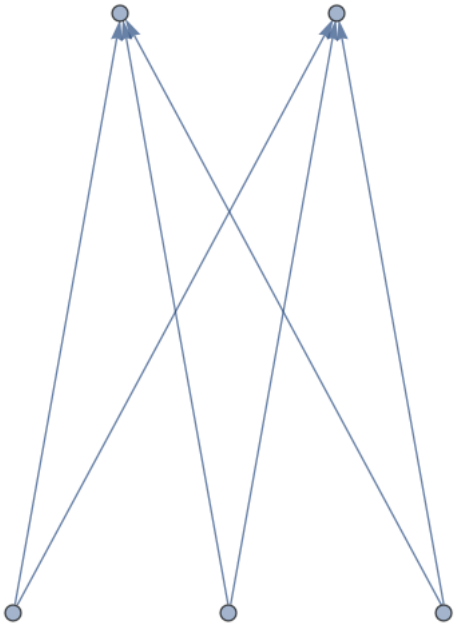
Third, we note that $8 = 4 \times 2$ and $6 = 4 + 2$



As before, the $M_{4,2}$ monolith is the complete 6-partite graph with the **vertices** representing persons, the **rungs** representing rank and the **upward edges** representing transfer of knowledge to the ranks above.
Since the $M_{4,2}$ monolith can have no more than 6 vertices,
the upper bound on the number of persons is reduced to 6.

Further neural reduction of the upper bound on the number of persons using the $M_{3,2}$ monolith

Fourth, we note that $6 = 3 \times 2$ and $5 = 3 + 2$



As before, the $M_{3,2}$ monolith is the complete 5-partite graph with the **vertices** representing persons, the **rungs** representing rank and the **upward edges** representing transfer of knowledge to the ranks above.
Since the $M_{3,2}$ monolith can have no more than 5 vertices,
the upper bound on the number of persons is reduced to 5.

Conclusion

Therefore, by repeated use of four different monoliths, we reduce
the upper bound on the number of persons to 5.

The End