

**DESARROLLO SOLUCIÓN ENTREGA #1**

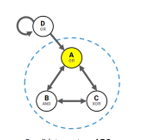
**Docente: Luz Enith Guerrero Mendieta**

**Presentado por:**

**Cristian David Gómez Becerra**

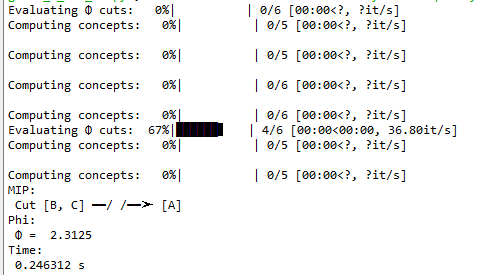
**Stiven Vélez Bedoya**

**Grafo Inicial**

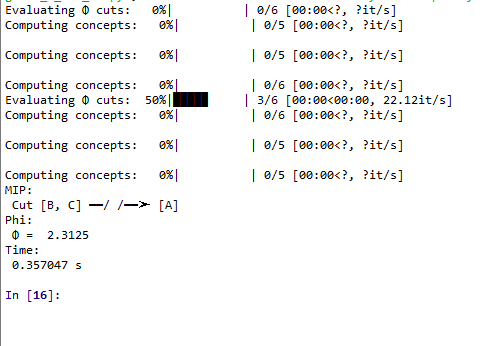


|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Entrada de datos | Medida de distancia | Esquema de partición | Resultados con CM | Resultados sin CM | Observaciones |
| Grafo: | EMD | biparticion | MIP:  Cut [B, C] ━━/ /━━➤ [A]  Phi:  Φ = 2.3125  Time:  0.246312 s | MIP:  Cut [B, C] ━━/ /━━➤ [A]  Phi:  Φ = 2.3125  Time:  0.505238 s |  |
| EMD | tripartición | MIP:  Cut [B, C] ━━/ /━━➤ [A]  Phi:  Φ = 2.3125  Time:  0.217384 s | MIP:  Cut [B, C] ━━/ /━━➤ [A]  Phi:  Φ = 2.3125  Time:  0.476244 s |  |
| KLD | bipartición | MIP:  Cut [B, C] ━━/ /━━➤ [A]  Phi:  Φ = 2.3125  Time:  0.223403 s | MIP:  Cut [B, C] ━━/ /━━➤ [A]  Phi:  Φ = 2.3125  Time:  0.495682 s |  |
| KLD | tripartición | MIP:  Cut [B, C] ━━/ /━━➤ [A]  Phi:  Φ = 2.3125  Time:  0.223404 s | MIP:  Cut [B, C] ━━/ /━━➤ [A]  Phi:  Φ = 2.3125  Time:  0.448496 s |  |

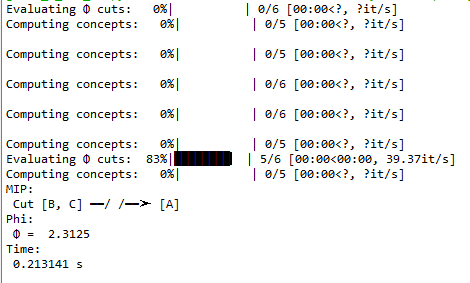
* **EMD-Bipartición-con CM**



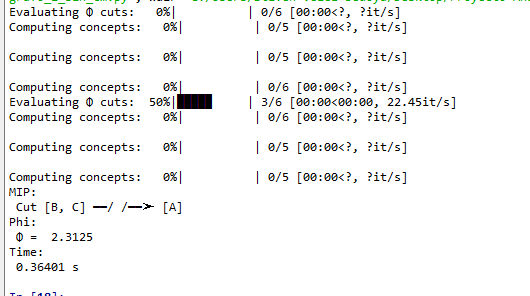
* **EMD-Bipartición-sin CM**



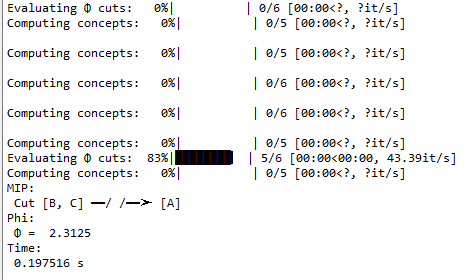
* **EMD-Tripartición-con CM**



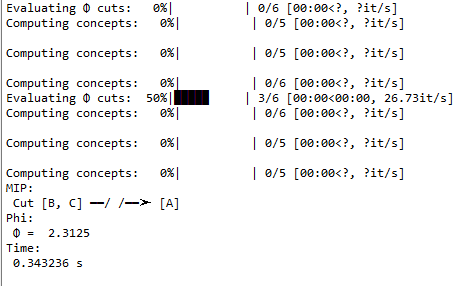
* **EMD-Tripartición-sin CM**



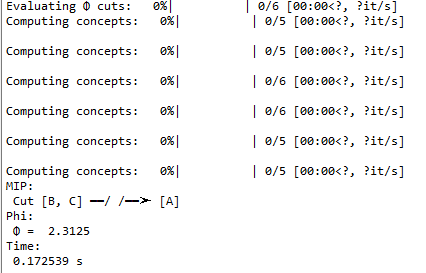
* **KLD-Bipartición-con CM**



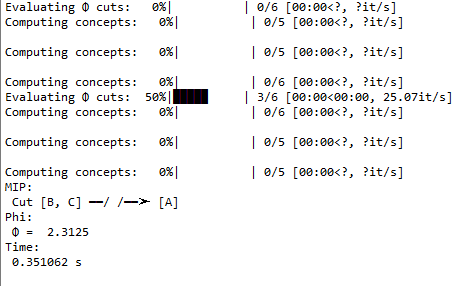
* **KLD-Bipartición-sin CM**



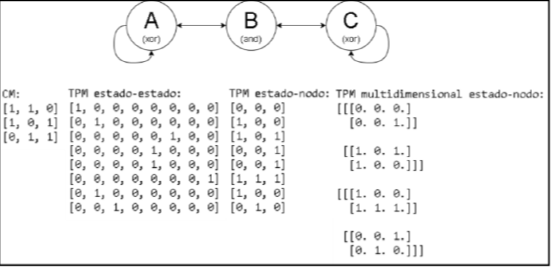
* **KLD-Tripartición-con CM**



* **KLD-Tripartición-sin CM**



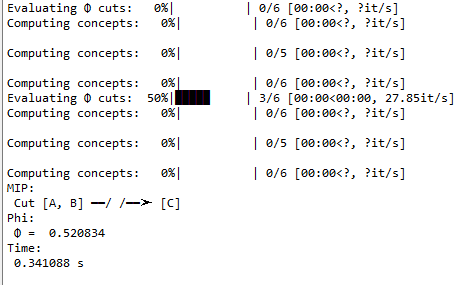
**Grafo 2**



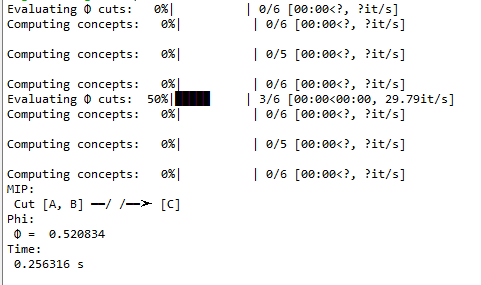
* **Estado-estado**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Entrada de datos | Medida de distancia | Esquema de partición | Resultados con CM | Resultados sin CM | Observaciones |
| Grafo: | EMD | biparticion | MIP:  Cut [A, B] ━━/ /━━➤ [C]  Phi:  Φ = 0.520834  Time:  0.341088 s | MIP:  Cut [A, B] ━━/ /━━➤ [C]  Phi:  Φ = 0.520834  Time:  0.256316 s |  |
| EMD | tripartición | MIP:  Cut [A, B] ━━/ /━━➤ [C]  Phi:  Φ = 0.520834  Time:  0.271785 s | MIP:  Cut [A, B] ━━/ /━━➤ [C]  Phi:  Φ = 0.520834  Time:  0.296044 s |  |
| KLD | bipartición | MIP:  Cut [A, B] ━━/ /━━➤ [C]  Phi:  Φ = 0.520834  Time:  0.262299 s | MIP:  Cut [A, B] ━━/ /━━➤ [C]  Phi:  Φ = 0.520834  Time:  0.278293 s |  |
| KLD | tripartición | MIP:  Cut [A, B] ━━/ /━━➤ [C]  Phi:  Φ = 0.520834  Time:  0.277937 s | MIP:  Cut [A, B] ━━/ /━━➤ [C]  Phi:  Φ = 0.520834  Time:  0.289227 s |  |

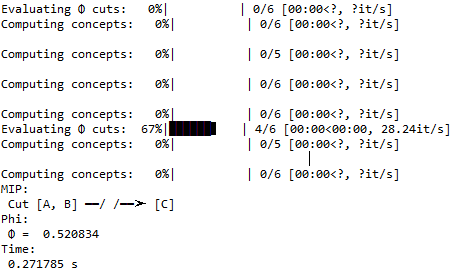
* **EMD-Bipartición-con CM**



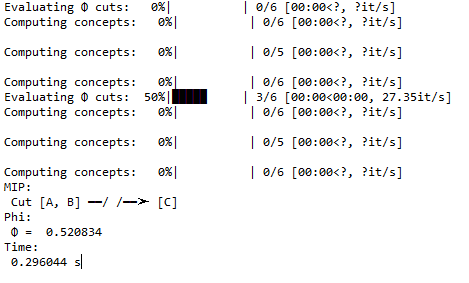
* **EMD-Bipartición-sin CM**



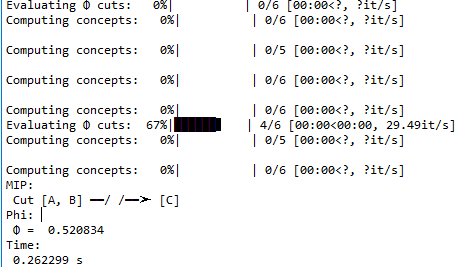
* **EMD-Tripartición-con CM**



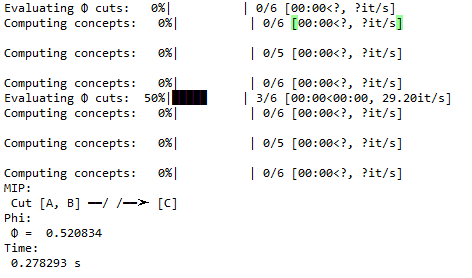
* **EMD-Tripartición-sin CM**



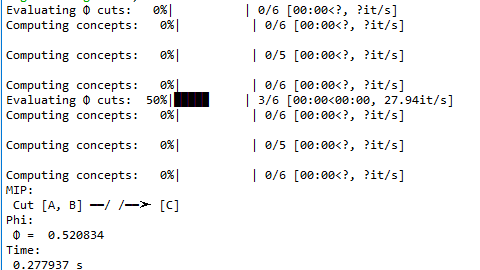
* **KLD-Bipartición-con CM**



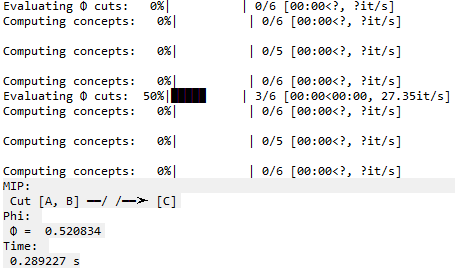
* **KLD-Bipartición-sin CM**



* **KLD-Tripartición-con CM**



* **KLD-Tripartición-sin CM**



* **Estado-nodo**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Entrada de datos | Medida de distancia | Esquema de partición | Resultados con CM | Resultados sin CM | Observaciones |
| Grafo: | EMD | biparticion | MIP:  Cut [A, B] ━━/ /━━➤ [C]  Phi:  Φ = 0.520834  Time:  0.341088 s | MIP:  Cut [A, B] ━━/ /━━➤ [C]  Phi:  Φ = 0.520834  Time:  0.256316 s |  |
| EMD | tripartición | MIP:  Cut [A, B] ━━/ /━━➤ [C]  Phi:  Φ = 0.520834  Time:  0.271785 s | MIP:  Cut [A, B] ━━/ /━━➤ [C]  Phi:  Φ = 0.520834  Time:  0.296044 s |  |
| KLD | bipartición | MIP:  Cut [A, B] ━━/ /━━➤ [C]  Phi:  Φ = 0.520834  Time:  0.262299 s | MIP:  Cut [A, B] ━━/ /━━➤ [C]  Phi:  Φ = 0.520834  Time:  0.278293 s |  |
| KLD | tripartición | MIP:  Cut [A, B] ━━/ /━━➤ [C]  Phi:  Φ = 0.520834  Time:  0.277937 s | MIP:  Cut [A, B] ━━/ /━━➤ [C]  Phi:  Φ = 0.520834  Time:  0.289227 s |  |