Network Dynamics and Simulation Sciences Laboratory Virginia Bioinformatics Institute Virginia Tech, Blacksburg, VA

Computer Science Department College of Engineering & Applied Sciences University at Albany – SUNY Albany, NY

Workshop on CINET – August 11, 2015

CINET/GRANITE Exercise – I(a)

Purpose: To quickly familiarize attendees with the use of CINET through the GRANITE interface.

Overview of the Exercise: You are required to use two networks available in CINET and compute three measures for each network using CINET. The networks to be used are (a) Dolphins Social Network in New Zealand and (b) Erdos Collaboration Network. For each of these two networks, you are required to compute the following measures: (i) **Density**, (ii) **Number of triangles** and (iii) **Diameter**. Please record your answers in the table shown below.

Network	#Nodes	#Edges	Density	#Triangles	Diameter
Dolphins Network	62	159			
Erdos Network	6927	11,850			

Procedure: To begin with, please do the following.

(a) Go to the login page: `http://cinet.vbi.vt.edu/granite/granite.html`.

(b) Log into Granite with your user name and password.

We will specify the steps for one graph (namely, the Dolphins Network) and one measure (namely, Density). You can repeat the steps for the other graph/measure combinations. (You may also want to see the note on page 2 of this exercise.)

1. Click on the "+New Analysis" button. (This displays a new window.)

2. Choose a name for the analysis. (An example of such a name is `Dolphins-Density-Aug11`.)

(over)

3. In the search box under the heading "Networks", type "Dolphins" (*without* the quote marks).

4. The name of the network ("Dolphins Social Network in NZ") appears below the search box. Select the network by clicking on the check box.

5. Click the "Continue" button above "Networks"; the system then displays the menu for "Add measure".

6. In the search box under "Measures", type "Density" (*without* the quote marks).

7. The Density measure appears below the search box. Select the measure by clicking on the check box.

8. Click the "Analyze" button above "Measures".

9. The system starts the computation and displays the "Status" of the computation.

10. When the "Status" appears as "COMPLETED", click on the "View Report" link.

11. In the resulting window, click on the `log.out` link to see the answer and record the answer in the table above.

Note: For a network, you can compute multiple measures as part of the same analysis. This is done as follows. In steps 6 and 7 above, find each measure that needs to be computed and click on the check boxes for all those measures before clicking the "Analyze" button in Step 8.