

Abstract Submitted  
for the MAR08 Meeting of  
The American Physical Society

**Epidemic of cell phone virus** PU WANG, MARTA GONZÁLEZ ,  
ALBERT-LÁSZLÓ BARABÁSI — Standard operating systems and Bluetooth technology will be a trend for future cell phone features. These will enable cell phone viruses to spread either through SMS or by sending Bluetooth requests when cell phones are physically close enough. The difference in spreading methods gives these two types of viruses' different epidemiological characteristics. SMS viruses' spread is mainly based on people's social connections, whereas the spreading of Bluetooth viruses is affected by people's mobility patterns and population distribution. Using cell phone data recording calls, SMS and locations of more than 6 million users, we study the spread of SMS and Bluetooth viruses and characterize how the social network and the mobility of mobile phone users affect such spreading processes.

Pu Wang

Date submitted: 08 Jan 2008

Electronic form version 1.4