1086-VF-967　　　　　**Alexander Y Vaninsky*** (`avaninsky@hostos.cuny.edu`), 450 Grand Concourse, Room B409, Bronx, NY 10451. *A Mathematician's View of Educational Neuroscience: A Hunt for a Mathematical Genius.*

In recent years non-invasive methods of neuroscience research on learning mathematics were developed: functional magnetic resonance imaging (fMRI), electroencephalography (EEG), and near infrared spectroscopy (NIRS). They paved the way to the determination of the brain domains responsible for the acquisition and storage of mathematical knowledge, with the parietal cortex playing the most important role. Neuroscience allows for the estimation of the latent ability of an individual to solve difficult mathematical problems. Recent studies were limited to either very simple arithmetic calculations or to the multiple choice problems. With the increase in the knowledge of brain activity and the improvements of the neuroscience investigation it becomes possible to develop more elaborated methods of early recognition of the extraordinary mathematical abilities and find individuals with genetically rich mathematics - related zones of their brains. This approach, as opposed to tests, is indifferent to race or socioeconomic status. Systematic selection of potentially talented youngsters will allow for the increase in the probability of finding a mathematical genius. We discuss different neuroscience techniques together with the methodology and possible ways of selection. (Received September 25, 2012)