

The City University, the City, and the Environment



Strategic plan for sustaining the growth of the City of New York

- Initiative of former NYC Mayor Michael Bloomberg
- First iteration published in 2007
- The City in the year 2030
- Prepare for a population growth from 8 million to 9 million people
- Reduce energy consumption to 70% of the 2007 level
- Improve quality of life
- Grow the economy
- Detailed at the community level
- Updated annually
- (Parenthetically, Use other people's money to do it)



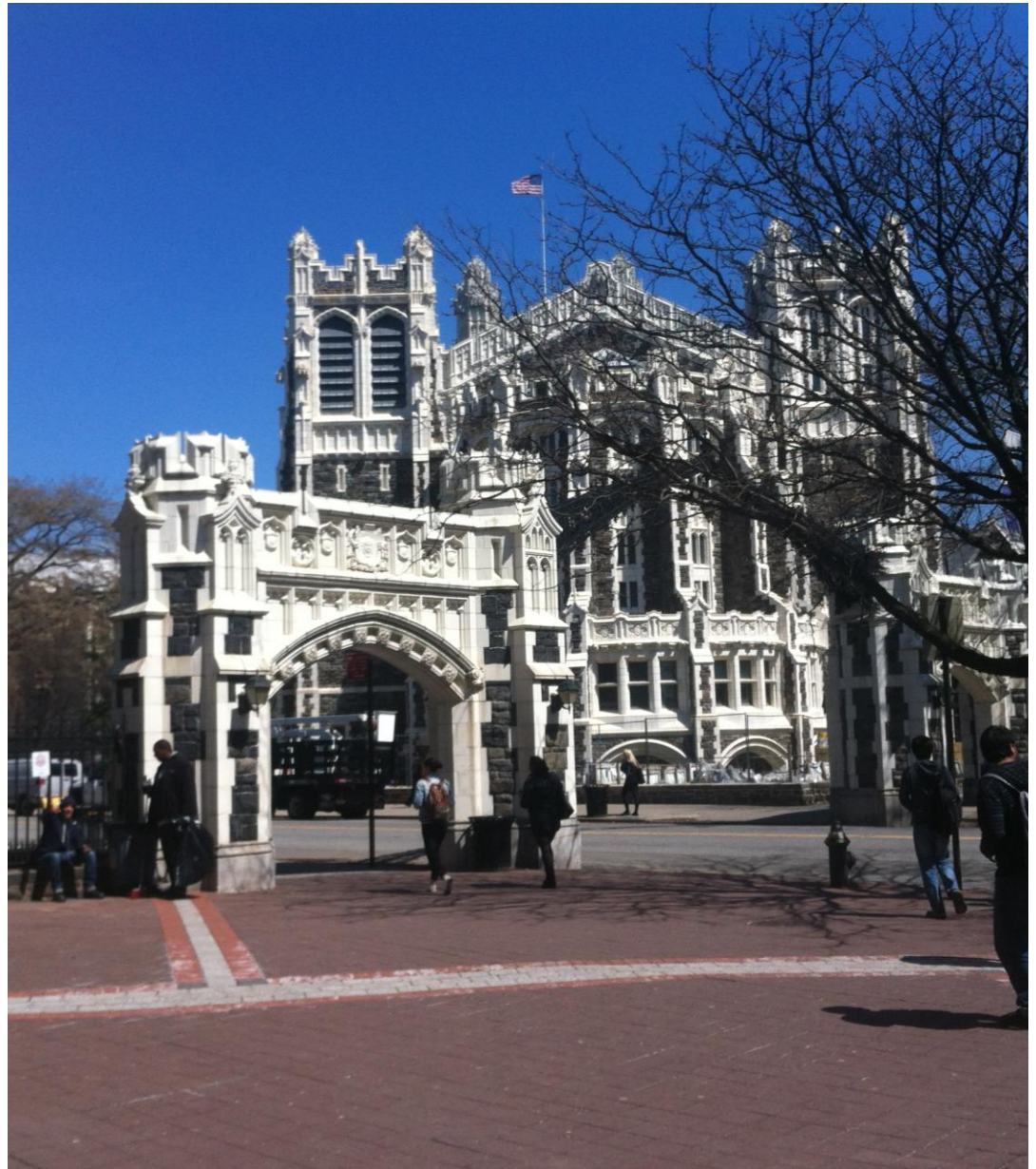
The City University of New York

- Initiative of a businessman, Townsend Harris, in 1847
- Expand the educated workforce by providing free education to qualified children of the working class, immigrants, and minorities
- Alumni include:
- 12 Nobel Laureates (11 of which were first in family to get college degrees)
- Jonas Salk, developer of the first polio vaccine
- Andy Grove, CEO Intel
- Robert Kahn, co-developer of TCP/IP

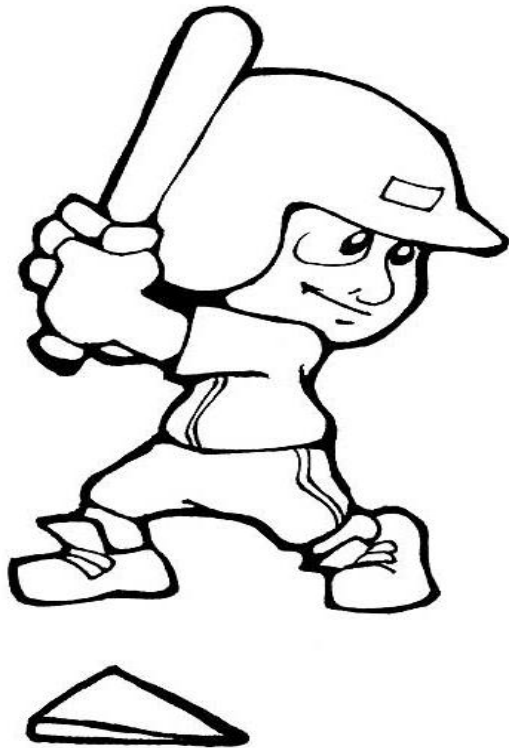


The City University of New York

- Largest urban university in the United States
 - 269,000 degree program students
 - 270,000 adult, continuing and professional education students
- Tuition and fees: \$5,900 per year, but 60% of degree program students attend at no cost
- Diverse student body
- 191 different languages
- 213 different countries
- First generation in college: 45%
- Work for pay (>20 hours/week): 30%



CUNY Players



Hunter College CARSI Team

Sean C. Ahearn
Hyo Jin Ahn
Jake Garcia
Gordon Green

Sustainable CUNY

Tria Case
Alison Klein
Noah Ginsburg

CUNY Central Computing

Anthony Fappiano

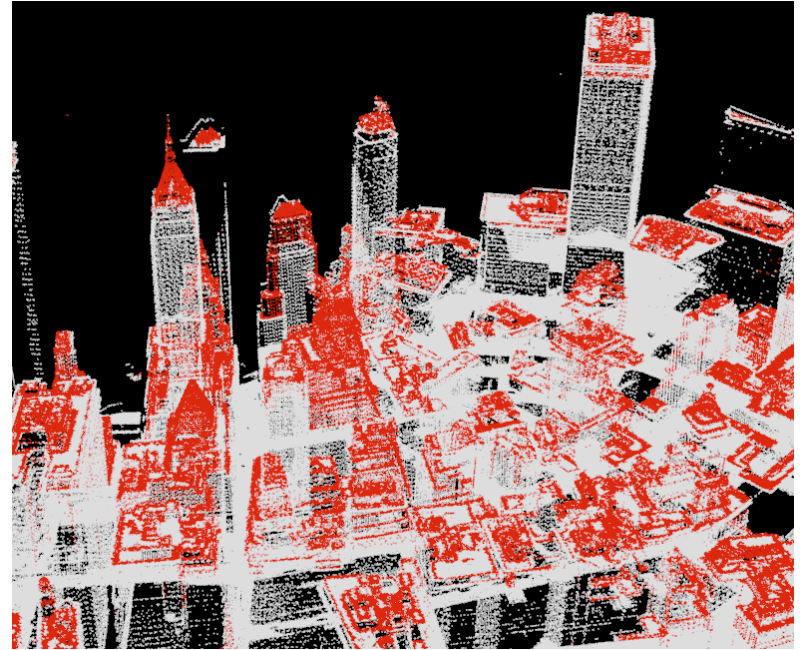
CUNY High Performance Computing Facility

Paul C. Muzio

METHOD

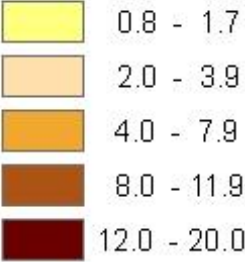
- Create a Digital Surface Model of the City of New York from LiDAR data
- Run a model to calculate solar insolation
- Calibrate model
- Create application environment

“NYC SOLAR MAP”

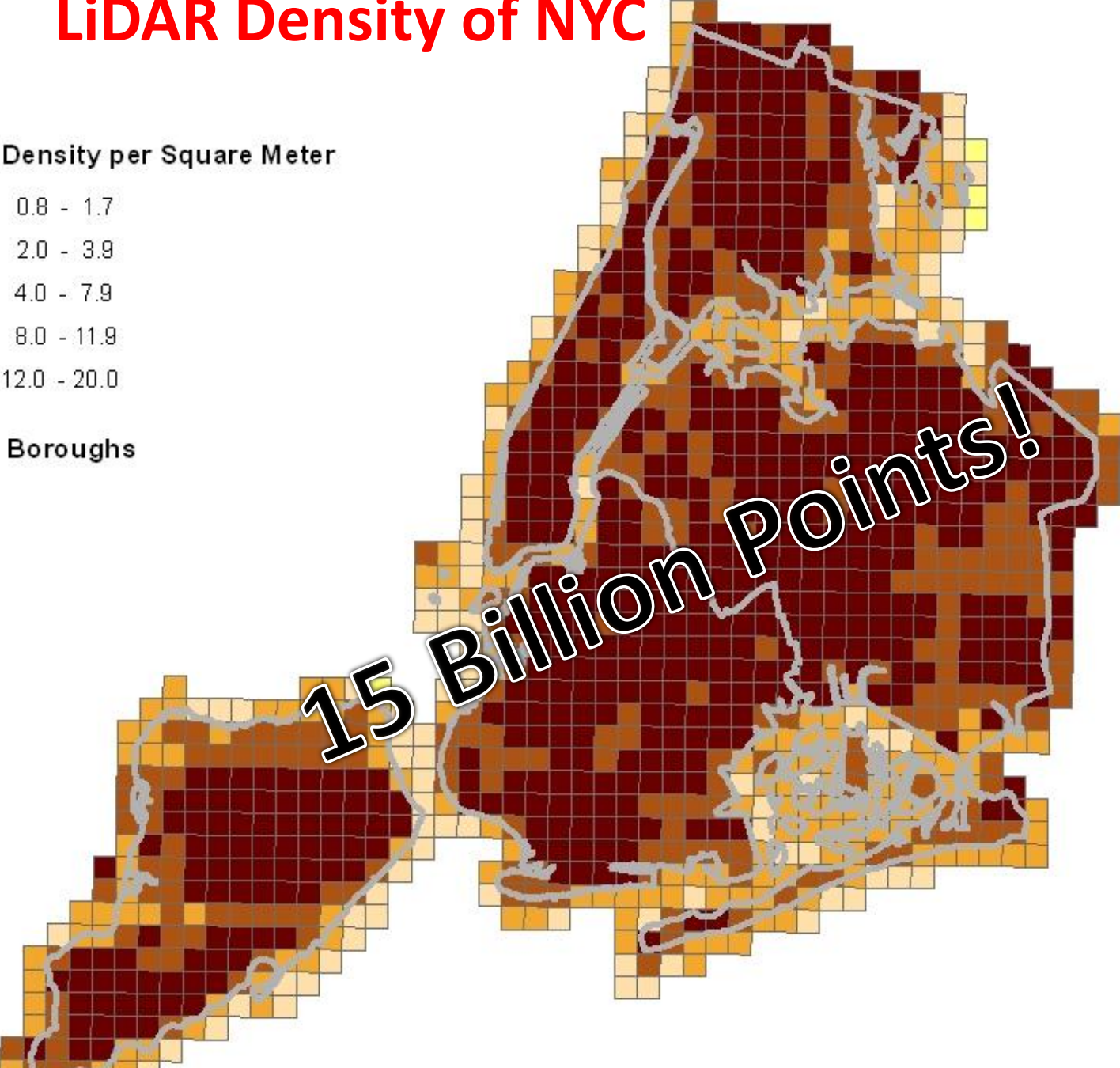


LiDAR Density of NYC

Point Density per Square Meter



Boroughs



15 Billion Points!

Solar Insolation Calculation



NEW YORK CITY SOLAR MAP

The **New York City Solar America City Partnership**, led by **Sustainable CUNY**, is proud to welcome you to the New York City Solar Map.

This map shows existing solar PV and solar thermal installations in NYC and gives an estimate of solar PV potential for every rooftop in the five boroughs.

The New York City Solar Map is a tool that all New Yorkers can use to learn about the potential for solar on their buildings and across the city. It also provides practical information and steps for installing solar.

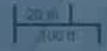
Thanks for visiting and helping to make New York City a Smart Solar City.

Do you want to add your system to the map? [Click here!](#)



GO TO MAP >>

gh 2010): 5,997 kW
7,340,695 kWh
15,174 trees



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<http://www.cuny.edu/about/resources/sustainability/solar-america.html>

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- Department of Energy-National Renewable Energy Laboratory
- National Science Foundation