Progress Report
QPE Research

Jose Maeso

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Reflectivity Calculation

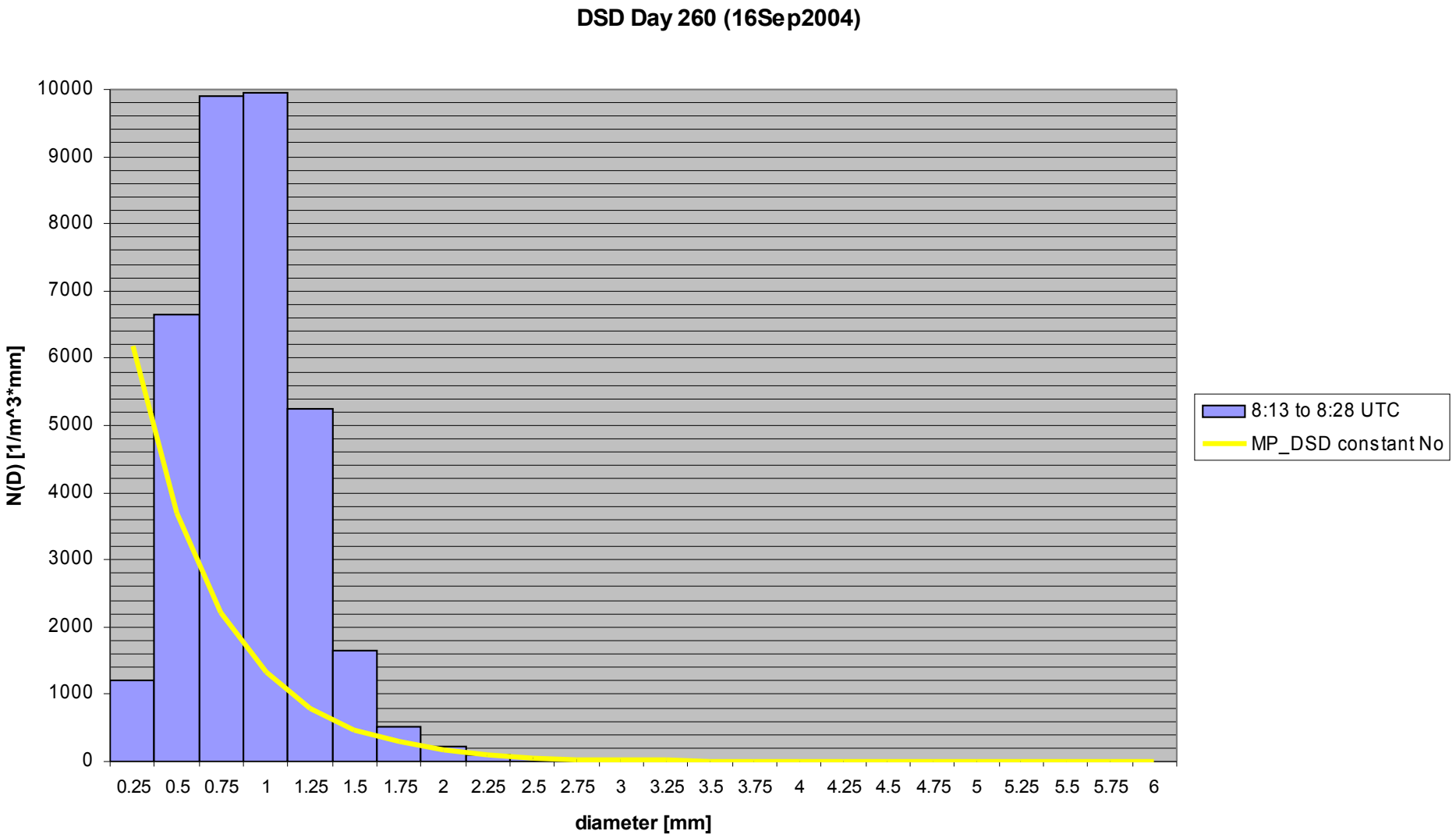
$$Z = \int_{D}^{D+\Delta} N(D) D^6 dD$$

- Computed using Matlab function ‘quad’
  - numerically evaluates definite integral using Adaptive Simpson Quadrature Method
- Day 244 (31Aug2004)
- 3:52-3:53 UTC
  - Z = 1.4117
  - dBZ = 1.4973
- Need to read data automatically
  - Too many data points to input manually

Rain-rate Comparison

- R = 0.0134 mm/hr
  - computed from inversion of $Z = 250R^{1.2}$
- R =0.008924 mm/hr
  - from disdrometer
- Difference
  - 50.16%

Measured DSD vs. MP-DSD model



Measured DSD vs. MP-DSD model (logarithmic)