

# Errata and additions

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This document contains a list of errata and additions for the project entitled "Calculating mathematical constants with Monte Carlo simulations".

1. Fixed minor typographical and grammatical errors.
2. Fixed incorrect and confusing notation in the following theorems,
  - Theorem 2.1
  - Theorem 2.2
  - Theorem 7.1
  - Theorem 7.2
3. Added the proof of the integral representation of the Stieljes constants for the sake of completeness.
4. Corrected a major error in the definition of "Discrepancy" and "Star discrepancy" (eq. 8.1 and 8.2) where "measure" had been incorrectly stated as "metric".
5. Modified the statement of eq. 8.1 and 8.2 to be the general multidimensional definition.
6. Modified unclear definition of "Radical inverse function" (eq. 8.4).
7. Added example images of the Niederreiter and Sobol' quasirandom sequences in 3-Dimensions.

8. Added a few details in the construction of the Sobol' quasirandom sequence.
9. Added the following additional references
  - [5] for the definition and properties of the Lebesgue measure.
  - [13] to reference a known expression of the Riemann zeta function, the Higher order Cauchy integral theorem and the Cauchy-Goursat theorem.
  - [23] a modern reference book that also explicitly constructs the Niederreiter and Sobol' quasirandom sequences.