

**Modeling and Analysis Principles  
for  
Chemical and Biological Engineers  
2nd Edition**

**Errata for the Second Edition, First Printing**

Check [www.chemengr.ucsb.edu/~jbrow/principles](http://www.chemengr.ucsb.edu/~jbrow/principles) for a current list

November 8, 2024

1. Page 477, ten lines from bottom. Change  $\sin \theta \, BdW_y$  to  $\sin \theta \, dW_y$ . Thanks to Titus Quah of UCSB for pointing out this erratum.

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**Other Changes from the First Edition to the Second Edition**

November 8, 2024

1. Page 4. The Cauchy-Schwartz inequality is derived. The Euclidean norm (2-norm) is shown to satisfy the triangle inequality.
2. Page 124. The property that the Fourier series coefficients minimize the  $L_2$  norm of the approximation error is *established*. Orthonormal rather than orthogonal basis functions are used in this development.
3. Page 225. Exercise 2.9 is modified to include Bessel's inequality as well as Parseval's equality.
4. Page 292. Item 7 on the convolution theorem has been expanded.
5. Page 413. The marginal intervals when estimating parameters for the case of unknown measurement error variance are provided. Exercise 4.60 ([www.chemengr.ucsb.edu/~jbrow/principles](http://www.chemengr.ucsb.edu/~jbrow/principles)) discusses how to derive this result.