Tutorials on calibration and uncertainty

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One series by James Miller: "Calibration Methods in Spectroscopy"

Part 1: Why are calibration methods useful in spectroscopy?; Spectroscopy International; 3(3), p.42-43 (1991)
Part 2: Is it a straight line?; Spectroscopy International; 3(4), p.41-43 (1991)
Part 3: Straight line graphs: assumptions and equations; Spectroscopy International; 3(5), p.43-46 (1991)
Part 4: Errors in calibration graphs; Spectroscopy International; 3(7), p.45-47 (1991)
Part 5: Further errors in calibration graphs; Spectroscopy International; 4(1), p.41-43 (1992)
Part 7: Weighted Regression; Spectroscopy International; 5(1), p.22-24 (1993)

Single article:

Paul Loconto; Can we Ever let 3 <sigma> go?; American Laboratory; Feb., 2005; p36-40

A series by Peter L. Bonate: "Concepts in Calibration Theory"

Part 1: Regression; LC-GC; 10(4), p.310-314 (1992)
Part 2: Regression through the origin: when should it be used?; LC-GC; 10(5), p.378-379 (1992)
Part 3: Weighted Least-Squares Regression; LC-GC; 10(6), p.448-450 (1992)
Part 4: Prediction and confidence intervals; LC-GC; 10(7), p.531-532 (1992)

A long series by Dave Coleman and Lynn Vanatta: "Statistics in Analytical Chemistry". Despite the title, it's all about regression. They show how to do a very thorough analysis of data and residuals, showing, for example, how to decide if weighted calibration is warranted. Unfortunately I can't seem to find a bunch I KNOW I have at the beginning. But here's the ones I've found, if/when I find the rest I'll send the info, unless you tell me not to.

Part 12: Calibration example 2; American Laboratory; p. 38-40 (July 2004)
Part 13: Calibration example 3; American Laboratory; p. 28-30 (Sept 2004)
Part 15: Calibration example 5; American Laboratory; p. 48-52 (Feb. 2005)
Part 16: Calibration example 5 continued; American Laboratory; p. 37-40 (May 2005)
Part 17: Calibration example 6; American Laboratory; p. 32-36 (August 2005)
Part 19: Internal Standards; American Laboratory; p. 23-24 (Dec. 2005)

As you might imagine, each calibration example illustrates a different issue.

Single article:

Neil Ullman; "Addressing Measurement Uncertainty"; ASTM Standardization News; p.42-45 (Oct. 2005)