Ideals, Varieties and Algorithms, *first edition*

Errata for the third printing as of July 14, 2000

Page 29, line 4: Replace "were" with "where"

Page 54, line 17: Replace "term orderings" with "monomial orderings"

Page 58, line -1: Replace "multideg" with "multidegree"

Page 70, line 13: Replace "x^α" with "x_1^α"

Page 73, part b of Exercise 12: "the gradlex order $>_{gradlex}$" should be "the grlex order $>_{grlex}$"

Page 82, line -2: Replace "proposition" with "lemma"

Page 99, line 9: Replace displayed equation with "$-(4/3)x^3z+x^2y^2+2xyz-(4/3)y^3-(1/3)z^2=0$"

Page 110, line 15: Replace "Exericse" with "Exercise"

Page 111, line 15: Replace "in in" with "in"

Page 112, line -7: Replace "167383594" with "170255391"

Page 127, line -5: Replace "thus" with "Thus".

Page 144, line 1: "§7 of Chapter 2" should be "§8 of Chapter 2"

Page 144, line -16: Replace "need to show that notion" with "We need to show that the notion"

Page 148, line 9: Replace "f and g" with "g and h"

Page 180, line 1: "xz and dividing xz by xy gives 0 plus remainder xy" should be "xy and dividing xz by xy gives 0 plus remainder xz"

Page 183, line 5: "If I and J be ideals" should be "If I and J are ideals"

Page 196, line 3: Replace "repect" with "respect"

Page 207, line -10: Replace "irreducible varieties" with "varieties"

Page 232, line 12: Replace "$k[x_1,\ldots,x_n]/I$" with "$\mathbf{C}[x_1,\ldots,x_n]/I$"

Page 232, line -7: Replace "$k[x_1,\ldots,x_n]/I$" with "$\mathbf{C}[x_1,\ldots,x_n]/I$" twice

Page 232, line -6: Replace "$k[x_1,\ldots,x_n]/I$" with "$\mathbf{C}[x_1,\ldots,x_n]/I$"

Page 234, line -18: Add the following: "Hint: Use Proposition 4 and part (iii) of Theorem 6."

Page 244, line 20: Replace "*smooth*" with "*nonsingular*"

Page 246, line -1: Replace "Exercise 4" with "Exercise 2"

Page 274, line 4: Replace "Exercise 13" with "Exercise 14"

Page 279, lines 5, 9 and 10: Replace "x_m" with "x_n"

Page 291, line -4: Replace "$\frac{u_2^2}{u_1^2+u_2^2}$" with "$\frac{u_1u_2^2}{u_1^2+u_2^2}$"

Page 299, line -3: Replace "$\textsc{lc}(h,x_n)$" with "$\textsc{lc}(f_n',x_n)$"

Page 315, line 2: replace "$\sum_{i=0}^k h_k(x_k,\ldots,x_n)\sigma_i(x_1,\ldots,x_n)$" with the corrected formula "$\sum_{i=0}^k(-1)^i h_{k-i}(x_k,\ldots,x_n)\sigma_i(x_1,\ldots,x_n)$"

Page 317, line -8: Replace "$M_{\tau\nu}$" with "$M_{\nu\tau}$"

Page 317, line -7: Replace "$\tau\nu$ is the permutation that takes i to $\tau(\nu(i))$" with "$\nu\tau$ is the permutation that takes i to $\nu(\tau(i))$"

Page 347, line -6: Replace "it coordinates" by "its coordinates"

Page 376, line -6: Replace "grlex" with "grevlex"

Page 393, lines 1 and 2 of Exercise 7: Replace "$F_1 = u + vy$ and $F_2 = u^2 + u^2y$" with "$F_1 = u - vy$ and $F_2 = u^2 - v^2y$"

Page 393, line 2 of part a of Exercise 7: Replace "$y(1+y)$" with "$y(1-y)$"

Page 393, line 1 of part b of Exercise 7: Replace "$u^2y(1+y)$ and $v^2y(1+y)$" with "$u^2y(1-y)$ and $v^2y(1-y)$"

Page 393, line 2 of part b of Exercise 7: Replace "$uy(1+y)$, $vy(1+y)$ and $vy^2(1+y)$" with "$uy(1-y)$ and $vy(1-y)$"

Page 393, line 1 of part c of Exercise 7: Replace "$\langle y^2(1+y)\rangle$" with "$\langle y(1-y)\rangle$"

Page 421, line -12: Replace "$5s-3$" with "$5s-5$"

Page 421, line -10: Replace "$(5s-3)+4 = 5s+1$" with "$(5s-5)+4 = 5s-1$"

Page 425, lines 4 and 5: Replace with the following: "where $\beta = \sum_{i \notin \{j_i,\ldots,j_r\}} b_i e_i$. If $A \neq B$ and $A \cap B \neq \emptyset$, then show that

$$[e_{i_1}, \ldots, e_{i_m}] \neq [e_{j_1}, \ldots, e_{j_r}]$$

and that $A \cap B$ is a translate of"

Page 425, line 7: Replace "$\leq \min(m,r)$" with "$< \max(m,r)$"

Page 458, line -2: Replace "z-axis" with "y-axis"

Page 459, line -15: Replace "x-axis" with "y-axis"