

*Errata for Discrete Fractional Calculus as of July 31, 2018:*

**CHAPTER 1**

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- (1) Page 13 replace “1.44” by “1.35” (but 1.44 is okay)
- (2) Page 24, line 15 replace second “cos” by “sin”
- (3) Page 28, line 1- replace second “d” by “d-1”
- (4) Page 49, line 1

$$e_{\frac{\alpha}{\tau}}(t, a) \cos_{\frac{\beta}{1+\alpha}}(t, a), \quad e_{\frac{\alpha}{\tau}}(t, a) \sin_{\frac{\beta}{1+\alpha}}(t, a)$$

- (5) Page 49, line 9- should be “ $(t\Delta - \alpha_1)(t\Delta - \alpha_2) \cdots (t\Delta - \alpha_n)y = 0$ ”
  - (6) Page 50, line 1 replace “ $\mathbb{R}_n$ ” to “ $\mathbb{R}^n$ ”
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**CHAPTER 2**

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- (1) Page 101, line 6 This formula is incorrect
  - (2) Page 102, line 6 should be “ $= -\frac{\nu\Gamma(t-s)}{\Gamma(\nu+1)\Gamma(t-s-\nu+1)}$ ”
  - (3) Page 106, line 2- replace “ $\mathbb{N}_0$ ” by “ $\mathbb{N}_{\nu-N}$ ”
  - (4) Page 107, line 2 replace “ $\mathbb{N}_0$ ” by “ $\mathbb{N}_{\nu-N}$ ”
  - (5) Page 107, line 4 replace “ $\mathbb{N}_0$ ” by “ $\mathbb{N}_{\nu-N}$ ”
  - (6) Page 119, line 7- replace “ $h_{\nu-1}$ ” by “ $h_{-\nu-1}$ ”
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**CHAPTER 3**

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- (1) Page 152, line 12 The last sentence on this line should appear right after Definition 3.4
- (2) Page 156, line 10- omit second “:”
- (3) Page 157, Between line 6 and line 7 put “(ix)  $E_p(t, s) = \frac{1}{E_p(s, t)}$ ,  $t \in \mathbb{N}_a$ .”
- (4) Page 158, line 5- replace lower limit to “t+1” and upper limit to “r”
- (5) Page 160, line 5 and 6 it should be “ $1 - p(\tau)$ ”
- (6) Page 161, line 7 it should be “ $\alpha \square (\beta \square p)$ ”

- (7) Page 163, line 5- replace “ $g$ ” by “ $q$ ”
- (8) Page 164, line 7 omit “where  $t_0 \in \mathbb{N}_{a+1}$  and  $A, B \in \mathbb{R}$ ”
- (9) Page 173, line 12  $\int_a^t E_p(s, a) \nabla s = \frac{1}{p} E_p(s, a)|_a^t$
- (10) Page 174, line 2- replace “ $\frac{1}{4}$ ” by “ $\frac{3}{4}$ ”
- (11) Page 177, line 4 the lower limit on the integral should be “ $a$ ”
- (12) Page 177, line 15 replace “ $\ominus 3$ ” by “ $\boxminus 3$ ”
- (13) Page 178 Lines 12, 13, 14 replace “ $\ominus 3$ ” by “ $\boxminus 3$ ”
- (14) Page 192, line 14 replace “ $0$ ” by “ $f(a+1)$ ”

#### **CHAPTER 4**

- (1) Page 290, line 1- replace “ $n - 1$ ” by “ $n$ ”
- (2) Page 292, line 13 replace every “ $\alpha$ ” that appears as an exponent including falling exponents that have an “ $\alpha$ ” in them by “ $\nu$ ”
- (3) Page 292, line 14 replace second “ $\alpha$ ” by “ $\nu$ ”
- (4) Page 292, line 2- replace second “ $\alpha$ ” by “ $\nu$ ”
- (5) Page 293, throughout this page replace every “ $\alpha$ ” that appears as an exponent including falling exponents that have an “ $\alpha$ ” in them by “ $\nu$ ”
- (6) Page 293, line 3 replace “ $t \geq s$ ” by “ $t \leq s$ ”

#### **CHAPTER 5**

- (1)

#### **CHAPTER 6**

- (1)

**CHAPTER 7**

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(1)