Thomas Haslwanter

3D-Kinematics

– Errata –

January 3, 2019

Appendix: Python and Matlab

p. 130, *Matlab:* In *Matlab 2018a* the function `normalize` was introduced. So to make the toolbox compatible with new *Matlab* versions, the function `normalize` was renamed to `normalize_vector` (see Table 0.1)

List of Programs

group	Python	Matlab
quat	Quaternion (class)	@quat(class)
	calc_angvel	calc_angvel
	calc_quat	calc_quat
	convert	quat_convert
	deg2quat	deg2quat
	q_conj	q_conj
	q_inv	q_inv
	q_mult	q_mult
	q_scalar	q_scalar
	q_vector	q_vector
	quat2deg	quat2deg
	quat2seq	quat2seq
	unit_q	unit_q
rotmat	convert	rotmat_convert
	dh	dh
	dh_s	dh_s
	R	R
	R_s	R_s
	seq2quat	seq2quat
	sequence	sequence
imus	IMU_Base (class)	—
	analytical	analyze_imus
	kalman	imu_Kalman
	Mahony	@MahonyAHRS(class)
	Madgwick	@MadgwickAHRS(class)
		imu_Madgwick, or imu_Mahony
markers	analyze_3Dmarkers	analyze_3Dmarkers
	find_trajectory	find_trajectory
vector	angle	vector_angle
	GramSchmidt	GramSchmidt
	normalize	**normalize_vector**
	project	project_vector
	plane_orientation	plane_orientation
	q_shortest_rotation	q_shortest_rotation
	rotate_vector	rotate_vector
	target2orient	target2orient
view	orientation	view_orientation
	ts	view_ts
utility	— (in numpy)	copysign
	— (in numpy)	deg2rad
	(in Class IMU)	get_XSens
	— (in numpy)	rad2deg
	— (in scipy)	savgol
	— (in numpy)	toRow

Table 0.1 Python and Matlab functions provided with this book.