influence on movement matrix. This matrix is used for mapping the angular velocity to force/torque. As it can be seen, by changing tilt angle, full controllability of multirotor UAV can be achieved over its 6 DOF body pose in space. It means that roll angle can be decupled from the *Y*-translation and the pitch angle from the *X*-translation.

By running several simulations with various tilt angle, force and torque ellipsoids can be obtained as shown in Fig. 7 and Fig. 8. These ellipsoids represent available force in space as a function of tilt angle. As it can be seen, the available force in *XY* plane increases as tilt angle increase.

Further work will include control design for various configuration with stability analysis and mathematical model improvements.

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