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Autonomous Control for Cooperated Networked, Distributed Small Satellite Formations

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Via Fabio Severo 40, Trieste

Formations of satellites require challenging autonomous reaction capabilities in order to coordinate attitude and orbit control for joint measurements in Earth observation and telecommunication applications. Distributed networked, cooperating very small satellites exhibit increasing capabilities. Modern miniaturization technologies support realization of

robust, cost-efficient small satellites with growing performance related to attitude and orbit control. Thus, networks of detectors composed of picosatellites are possible, enabling by cooperating formations improved observation characteristics. In combination with sensor data fusion, innovative application approaches to Earth observation and communications are enabled.