




1st APSCO & ISSI-BJ Space Science School



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CubeSat Mission Design and Implementation

- Examples with STU-2/TW-1 mission





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Outline

1. **Mission Design:** "TW-1: a CubeSat constellation for space networking experiments", Wu S-F, Mu Z-C., Chen W., Rodrigues P., Mendez R., Alminde L., 6th European CubeSat Symposium, Oct 14-16th 2014, Estavayer-le-Lac, Switzerland
2. **Satellite Design:** "Earth Observation and Marine/Air Traffic Monitoring with a Multiple CubeSat Constellation", Wu S-F, Chen W, Cao C., et al, IAC.15.B4.4.3, presented at 66th International Astronautical Congress, Oct. 2015, Jerusalem, Israel
3. **System Results:** "The STU-2 CubeSat Mission and In-Orbit Test Results", Wu S-F, Chen W., Cao C-X, SSC16-III-09, presented at the 30th AIAA/USU Conference on Small Satellite, Utah, USA, 8-11, Aug. 2016
4. **ADCS:** "Attitude Determination and Control System Design for STU-2A CubeSat and In-Orbit Results", Liu G-W, Xia X-W, Wu Z-Y, Wu S-F, et al, presented at the 13th Annual CubeSat Developers' Pre-Conference Workshop of the 30th AIAA/USU Conference on Small Satellite. Aug 6-7, 2016, Utah, USA

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Outline

5. **Power System:** “Design And Implementation of Electrical System For STU-2 Cubesats”, Chen K, Wu S-F, IAC.16.C3.4.2, presented at the 67th International Astronautical Congress (IAC), Guadalajara, Mexico, 26-30, Sept. 2016
6. **Payload Design:** “An efficient design and integration technology for CubeSat payload”, Zhang X, Wu S-F, Chen W, Feng H., IAC.16.D1.7.7, presented at the 67th International Astronautical Congress (IAC), Guadalajara, Mexico, 26-30, Sept. 2016
7. **Payload Design/Application:** “Antarctic Glacier and Sea Ice Observation With a Chinese Cube Satellite”, Wu S-F, Zhao T-C, Gao Y, Cheng X., IAC.16.B4.4.11, presented at the 67th International Astronautical Congress (IAC), Guadalajara, Mexico, 26-30, Sept. 2016
8. **Payload Design/Application:** “Aircraft Monitoring by the Fusion of Satellite and Ground ADS-B Data”, Zhang X, Zhang J-J, Wu S-F, Cheng Q, Zhu R., IAC.16.B5.2.9, presented at the 67th International Astronautical Congress (IAC), Guadalajara, Mexico, 26-30, Sept. 2016

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