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#### A.B. Zacharenko, S.A. Martynova

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('VNIIEM Corporation' JSC)

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SPACE ELECTROMECHANICS. SPACECRAFT

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('VNIIEM Corporation' JSC) Design technique for high-precision multilink constructions (HPMC) for space-born radar systems with application of antenna-feeder device based on antenna array of Earth remote sensing satellites is described. Modeling technique for HPMC of different specifications and for different design stages is presented and recommendations for adjustment and updating of HPMC mathematical models are proposed.

Key words: mechanical system, high-precision multilink construction, mathematical modeling, design technique.

#### A.K. Kuzmin, A.M. Merzly

(FSBSI (Federal State Budgetary Scientific Institution) Space research institute, Russian Academy of Sciences, Moscow)

EXPERIMENT for EARTH'S IONOSPHERE CONDITIONS by MEANS of the OPTICAL SYSTEM «AVROVIZOR-VUV» as PART of HIGH-APOGEE and LOW ORBIT SPACECRAFT. Specific of the experiment for Earth's ionosphere conditions monitoring aimed at solving scientific and applied problems by means of the future space-based optical system (OS)

Avrovizor-VUV" in vacuum ultraviolet (VUV) spectrum as part of displaying cameras and displaying spectrometers of different model types is discussed. The OS is designed to perform global and local remote observation and Earth's polar ionosphere conditions monitoring by the high-apogee (orbit of the "Molniya" type) and low orbit spacecraft. Key words: remote diagnostics of the Earth's polar ionosphere, global and local observation, vacuum ultraviolet band of spectrum, auroral oval.

### V.V. Eremeev, P.A. Knyazkov, A.E. Kuznetsov

(Ryazan' State Radiotechnical University)

### V.A. Ermakov, O.A. Nikonov

('VNIIEM Corporation' JSC)

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Key words: imaging systems MSU-MR (Low-resolution Multispectral Scanner) and KMSS (Multispectral Imaging System), geometrical calibration, radiometric and geometric quality of mission data, spatial resolution, Meteor-Control program complex.

#### PRODUCTS and EQUIPMENT TEST METHODS

#### N.A. Krasova, I.Yu. Pugach, A.Yu. Ruzakov

('VNIIEM Corporation' JSC)

MATHEMATICAL MODEL CREATION. FACILITIES and GROUND PROCESSING to PROVIDE DYNAMIC STABILIZATION ACCURACY of 

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Key words: spacecraft, attitude control system, weightlessness, vibration dampers, dynamic stabilization accuracy, finite element scheme, micro flywheels.

### V.Ya. Gecha, D.V. Grinevich, N.A. Krasova, I.A. Meshchikhin

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