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COMPUTER PROCESSING OF THE K-SPACES THEORY

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The K-spaces theory is an axiomatic geometric theory especially created to present LFN (linear, functional, normal writing language). Referred [1] to other papers, LFN has been created following :
— a unified treatment of the language and metalanguage ;
— a complete formalization of the syntactical rules ;
— the subordination of formation rules to functional inference rules ;
— the possibility to describe all notions of mathematics in relatively the same manner ;
— the possibility of computer processing.
In [2] we have presented this language together with a part of the proof operators, mentioning the possibility of the computer processing of the K-spaces theory. In [3] we have presented all the proof operators and the computer programs. The list of statements of the K-spaces theory has been created using the proof program written in FORTRAN 77 on the INDEPENDENT 102F computer. In this paper, a statement is preceded by its order number and followed by its proof.

The list of statements

1
12H2G32KZ3S13UZ1PZ
AXIOMA
2
12U1PI2SZ
AXIOMA
3
121F2H2G12KZ1SZ
3U2F21S13213S2T
4
12E2S121F221FE12L1F22L1FEXZ1SZ
AXIOMA
5
12U32VX2SA3PZ1PZ
AXIOMA
6
12E1S31U41VXZ2S32U42VXZ4PZ3PZ
6U2F11S21I2T3123S2T2F51S21I2T1343S25V32V2T71D2T6U2F11S21I2
T3123S2T2F51S2
1I2T1343S25V32V2T71D2TL15V25V41KX52A4852S2T

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7
12U32VX2SI3PZ1PZ
56X42A1J
8
1282D32H3P31HZM2GZ1GZ
DEF
9
1292D32K3S31KZM2GZ1GZ
DEF
01Y
1201Y2D1282D1292DXM2GZ1GZ
DEF
11Y
12E2G1201Y2D2101Y2DXZ1GZ
AXIOMA
21Y
121Y1D23V24UX4S41KI3S31KI2P21HZM1GZ
DEF
31Y
12HN1PZ2GI
AXIOMA
41Y
131Y0FKN1SZ
41YN2F1T11S31YF1TX12K3212S31YF2T31S42V2TC
51Y
12H1P131Y0FHZ2GZ
31YF2T51YN11Q1T24KXC
61Y
31Y0F182D1GZ
51Y31YF1TX81E31Y122M1T
71Y
12K1S131Y0FKZ2GZ
71YN11Q1T24K41YXC
81Y
31Y0F192D1GZ
71Y31YF1TX91E31Y122M1T
91Y
31Y0F101Y2D1GZ
61Y81YX1R31YF1TXO1Y1E91Y212M1T
02Y
12V2S231Y0FKA34E3S331Y0FK13VXZ4S431Y0FK14VXZX15U53531
Y0FKA67E6S631Y0FK16UXZ7S731Y0FK17UXZXX1P131Y0FHZ
31YF2T02YN71Q1TXC
12Y
12V13UX3S331Y0FKI2S231Y0FKI1P131Y0FHZ
02Y4J1J12K12K
22Y
31Y0F21Y1D
12Y31YF1TX21Y1E73Y11M1T
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32Y
131Y0FK1S12KZ2G231Y0F82DZ
32YN21Q12K1T31YF1TX89212M1T32F1T31S342S31Z1T11Q2T24K2F1
T31YF2T11S2TXC
42Y
131Y0F92D1G131Y0F82DZ
32Y31YF1TX91E31Y122M1T
52Y
131Y0F01Y2D1G131Y0F82DZ
42Y01Y31YF1TX22K12K31Z1T11G2T12Q11S2T
62Y
131Y0F82D131Y0F01Y2DM1GZ
52Y11Q01Y31YF1TX22K12K31Z1T11G1T12Q1T11QX1R12G
72Y
12H1P12HZ2GZ
72YN11QC
82Y
1182D1GZ
72Y81E9112M
92Y
131Y0FE1G131Y0F82DZ
52Y91Y11S31YF1TX12K11Y212S2T
03Y
131Y0F82D1G131Y0FEZ
03YU31YF1T0S82Y11S2T1E51D1E
13Y
131Y0F82D131Y0FEM1GZ
92Y11Q03Y11Q11S12G
23Y
131Y0FE1G131Y0F01Y2DZ
92Y62Y81Y11M
33Y
133Y1D121Y1D12E31Y0F2EB2G221Y1D2101Y2DXZXM1GZ
DEF
43Y
31Y0F1E1G121Y1D131Y0F01Y2DXZ
43YU23Y11S1E
53Y
31Y0F33Y1D
22Y43Y77VX31YF1TX33Y3E74Y11M1T
63Y
12EN2S23KNZ1S13KZ3GZ
63YN11Q1E11D1T14K11QC
73Y
12K1S12KZ2GZ
73YN11QC
83Y
1192D1GZ
73Y91E9112M
93Y
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1101Y2D1GZ
82Y83Y11S01Y1E11Y112M
04Y
1201Y2D2G12EZ1GZ
04YN11D11Q2T24K93Y11SC
14Y
1201Y2D2101Y2DX2G12EZ1GZ
04Y04Y11Q21K12Q1E212S
24Y
12E1201Y2D2101Y2DXM2GZ1GZ
14Y11Q11Y11Q212S32G
34Y
1282D2G3282DZ3G1382DZ1GZ
34YU811G1T22Q232S811G1T22Q422S12K11Z2T81E9122M
44Y
1282D1G1382DZ2G3282D3292DXZ3GZ
44YU34Y3213S
54Y
1282D1G1382DZ2G3201Y2DZ3GZ
44Y01Y1E62Y212M
64Y
31Y0F31Y0F01Y2D
31YF1T93Y11S2T
74Y
12374Y3D2301Y2D3282DX13KX42K14EB4S43KZXM3GZ2GZ1SZ
DEF
84Y
1201Y2D2182DX32KX41K34EB4S42KZX2G31274Y3DZ1GZ3SZ
74Y11G1T22Q
94Y
1282D1G34174Y3DZ2G34274Y3DZ4GZ3SZ
94YU84Y1T1T1T4323S84Y1T1T2T3143S54Y3213S2T
05Y
12K1S13KZ3G45374Y3DZ2G45274Y3DZ5GZ4SZ
05YN84Y2T13544S23V31A3T84Y1T1T1T01Y7212M2T95212M12354S15
V22V2T4T15V84Y1T2T3513S22V81D2T5TC

It goes without saying that the list of statements of the *K*-spaces theory does not end here, but taking into consideration that the purpose of this paper is to present a way of the computer processing of an axiomatic theory, we consider the list to be wide enough. We mention the *K*-spaces theory may be of interest in itself. Finally, we shall present the proof of theorem 3 step by step, indicating the action of each proof operator. Theorem 3 of the *K*-spaces theory is
121F2H2G12KZ1SZ and its proof is
3U2F21S13213S2T.
In detail, the action of the proof operators is
3 : 121F2H2G12KZ1SZ
3U : 01G21KZ2SZ
2F : 121FP121F1UX1SZ

3U2F21S :121FP121F1UX2G12KZ1SZ
1 : 12H2G32KZ3S13UZ1PZ
3U2F21S13213S :121FP121F1UX121F2HX2G12KZ1SZ
3U2F21S13213S2T :121F2H2G12KZ1SZ

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