

Fbgk_l_jkl\h gZmdb b \ukr_]h h[jZah\Zgby Jhkkbckdhc
N_^_jZevgh_]hkm^Zjkl_ggh_ [x^`_lgh_ h[jZah\ZI_evgh_`
 \ukr_]h h[jZah\Zgby
©Kfhe_gkdbc]hkm^Zjkl_gguc mgb_jkbl_l^a

DZn_^fZI_fZl_bq_kdh]h ZgZebaZ

©MI_j`^Zx^a
ljhj_dlhj ih mq_[gh
f_lh^bq_kdhc jZ[hI_`
BBBBBBBBBBBBBX : Mklb`
© ^ k_gly[jy]

**Рабочая программа дисциплины
Б1.О.09. Аналитические и вероятностные методы**

GZijZ\e_gb_ ih^]hlh\db FZI_fZlbdZ b dhfivxl_jgu_ gZn`
GZijZ\e_gghklv ijhnbev F_lh^u fh^_ebjh\Zgby \ ZgZeba_ b`
NhjfZ h[mq_hgbyZ y`
Dmjk,2±
K_f_klj,2,3,4
<k_]h aZq_lguo _^bgZkp50±±
NhjfZ hlq_lghklb aZqfl_kju wdaZk_g_klju`

ljh]jZffm jZajZ[hIZe
dZg^b^ZI nZal_dZl_bq_kdbo gZmd ^hp_gI OZjlh\ : :

H^h[j_gZ gZ aZk_^Zgbb dZn_^ju
©^aZ\]mklZ] ijhlhdhe <

Kfhe_gkd
]

1. Место дисциплины в структуре ОП

>bkrbieb:ggZ @lbq_kdb_ b _jhylg h^k kgu\ _jf bllk^yu\ h[yaZI_evgh
;ehdZ ^bkrbiebg b bamq_Z_klljZAggZykpbiebgZ yley_lky \kihfh].
^ey bamq_gby lZdbo ^bkrbiebg dZd ©>hihegbl_evgu_ jeZ
©>bkdj_lgu_ b _jhylg hklgu_ fh^_eb^a iic^k^k^b^f^Z^g^b^k^fv ©KZmqz
ijhp_kku^a ©ljbdeZ^gu_ klhoZklbq_fkdfb_b-fh^_fe_k^k^j^Z^o wIz ^bkrbie
yley_lky ^hihegbl_evghc ijZdlbdhc ^ey gbo b kh^_j^ZI_evgh
^bkrbiebgu aZ kq_l bamq_gby kh\j_k_bgg_kd_bo \Z_lgu^h\deZ_kklud_
_jhylg hklb <kh^_vklh\m_l klZgh^e_gbx ijhn_kkbhgZevghc dhfi_
fZI_fZlbbd b dhfivxl_jguo gZmd qh_g_vxyh_kk^h_jgZy^g^h^Zg^ghc ^bkrb
Bamq_gb_ dmjkZ hkgh\Zgh gZ bjZ^ukp_b_b_ggduh^f_lh^k^Z^hc \aZbfh
kf_gufb dmjkZfb Z lZd`_gZk_b^k^j^h^f^e^g^h^Z^g^h^f^_ghc f_lh^bq_kdhc
bgnhjfZpbhgguo b h[jZah\ZI_evguo l_ogheh]bc

2. Планируемые результаты обучения по дисциплине

Dhfi_l_gpb	Bg^bdZlhju ^hklb`_gby
<p>ОПК-1. Kihkh gZoh^blv nhjfmebjh\Zl j_rZlv Zdlm b agZq ijh[e_fu ijbdeZ^ghc dhfivxl_jghc fZI_fZlbbd</p>	<p>Знает: kh\j_f_gguc ZiiZjZI fZlh_k^h^b^b_ ihg [Zah\u_ f_lh^u fZI_fZlbq_kdh]h oZjZdl_j \uy\^e_gbbjfZebaZpbb ZgZeba_ b j_r_gbb b dhfivxl_jghc fZI_fZlbbd</p> <p>Умеет: gZoh^blv nhjfmebjh\Zlv \u[bjZlv g_ j_r_gby b j_rZlv ZdlmZevgu_ ijh[e_fu dhfivxl_jghc fZI_fZlbbd bkihevah\Zlv gZ ijb_fu fh_ebjh\Zgby khh\l_kl\mxsb_ ^ ^bkrbiebg_ beb fh^_ebjm_fhfm _kl_kl bkihevah\Zlv kbkl_fu dhfivxl_jghc fZI_fZlbbd</p> <p>Владеет: gZ\udZfb bkihevah\Zgby ihemq_gg k\^_gbc ^ey [he__ lhqgh]h b fZdkbf ihkljh_gby b j_ZebaZpbb Ze]hjbIfZ j_r_gb dhfivxl_jghc fZI_fZlbbd</p>
<p>ОПК-2. Kihkh kha^Z\Zlv bkke_ ^h\Zlv fZI_fZlbq_kd fh^_eb _kl_kl_gguo gZmdZo kh_jr_gkl\h\ jZajZ[Zlu\Zlv dhgp_ipbb b f_lh^u</p>	<p>Знает: hkgh\gu_yliby ijbdeZ^ghc fZI_fZlbbd ijbeh`_gbc \hafh`ghklb bkh^k^e^b^h\Zgby fZI_fZlbq_kdbo fh^_e_c _kl_kj_bfggugbgZg fZI_fZlbq_kdbo f_lh^h\ ihy\eyxsbooky ij^f_lghc h[eZklb hkgh\gu_ kihkh[u fZI_ bgnhjfZpbb b bo j_ZebaZpbb k ihfhs h[_ki_q_gby</p> <p>Умеет: ijbf_gylv fZI_fZlbq_kdb_ agZgby \ ^yl_evghklb ijb ihklfZ_l_gfZlbbq_kdbo fh _kl_kl_gguo gZ_rhdZsb_m]em[e_gguo ijhn agZgbc\u[bjZlv g_h[oh^bfu_ f_lh^u fh^bnbpbjh\Zlv kms_kl\mxsb_ b jZajZ[Zlu bkoh^y ba aZ^Zq dhgdj_gg^y]hhp_kk^g^h^Z^h^Z^j^h h[_ki_q_gb_ b i_jki_dlb\u_]h bkihevah\Zg ijhn_kkbhgZevguo aZ^Zq jZkrbjylv k\ ihagZgby</p> <p>Владеет: hkgh\gufb f_lh^Zfb hf[ZZ[hZlbbq_kdbo _kl_kl_gguo ggZmdZfb jZ[hlijh]kZffigu kj^akl\Zfb h[s_]h b ijhn_kkbhgZevgh]h gZ hjb_gIzPbb \ ijhn_kkbhgZevguo bklhqq gZ\udZfb ijh_^_gby wdki_jbf_glh\ b ZgZ fh^_eb klhoZklbq_kdh]h b ZgZebIbq_k</p>

3. Содержание дисциплины

__k_f_klj

Методы вещественного анализа. Fgh`_kl\Z KbkI_fu fgh`_kl\ H[_f F_jZ f_ju ljh^he`_gb_ f_ju F_jZ E_[_]Z b __ k\hcklBzf_Fbfju_CbZrb k\hckl\Z ljhklu_ nmgdpbb L_hj_fZ h[ZiijhdkbfZpbb Koh^bfh Bgl_]jZe ih f_j_ K\hckl\Z bgl_]jZeZ Bgl_]jZe ih f_j_ E_[_]Z Klbelv_kZ ljhba\^_gb_ f_j DjZlgu_ b ih\lhfjg u_hgb_ g_e_ljZ_eNm[b Nmgdpbb h]jZgbq_gghc \ZjbZpbb AZjy^u f_ju kh agZdhf b J_]meyjgh b f^_e_ggh f_gyxs_b_ky nmgdpbb

Методы функционального анализа. F_ljbq_kdb_ ijhkljZgkl\Z Koh^bfhklv b aZfdgmlu_ fgh`_kl\Z_ljhb_ g_kdb_f ijhkljZgkl\Z Lhiheh]bq_kdb_ DhfiZdlghklv Ebg_cgu_ ijhkljZgkl\Z Ghjfbjh\Zggu_ ijhkljZgkl\Z ?\deb^h\ u ijhkljZgkl\Z =bev[_jlh\ u ijhkljZgkl\Z G_ij_ju\gu_ e Khijy`_ggh_ ijhkljZgkl\Z h_kh_ezh]by b keZ[Zy koh^bfhklv Ebg_ Khijy`_gguc hi_jZlhj KZfhkhijy`_gguc hi_jZlhj

__k_f_klj

Разложения вероятностных законов. lj_^f_l l_hjbb jZaeh`_gbc _jhyl aZdhgh\ Ki_dlju aZdhgZ b bo k\yav kh ki_dljZfb dhfhg_g lhkljh_gb_ aZdhgh\ k aZ^Zggufb k\hckl\Zfb ki_dljZ ljb_f_ju N k\hckl\Z L_hj_fZ ObgqbgZ h nZ\lhb_jb_i_Z_pob_fu D_e_Z_kkibkZgby L DjZf_jZ L_hj_fZ JZcdh\Z L_hj_LZ Ebrg_g_b_Z_u_D_e_Z_kkibkZgby ba L/I_0 Mklhcqb\hklv jZaeh`_gbc

Спектральные представления законов и их применения. :gZebIbq_kdb_ k\hckl [_a]jZgbqgh ^_e_b_fugh\ aZD\Za]jZgbqgh ^_ebfu_ aZdhgu Wd hij_^_e_gby b we_f_glZjgu_ k\hckl\Z :gZebIbq_kdbq_gk\^_c_b\Z aZdhgh\ >bkdj_t_gua]jZgbqgh ^_ebfu_ aZdhgu ljb_f_g_gb_ d ij_^

__k_f_klj

Вероятностные методы аппроксимации. F_lh^ k_jlhd b _]h fh^bnbdZpbb hp_gdb ^ey j_r_lqZluo jZkij_^_e_gbc JZ\ghf_jgu_ hp_gdb ^ey Hp_gdZ iheghc \ZjbZpbb ^ey j_r_lqZluo jZkij_^_e_gbc C :iijhdkbfZpby \ ^bkdj_j_lghfqZghf kemqZ_ :iijhdkbfZpby ^ey g_ij_ju\guo jZkij_^_e_gbc F_lh^ Kl_cgZ F_lh^ lj_m]hevguo nm

Большие отклонения. Mkeh\b_ DjZf_jZ lj_h[jZah\Zgby EzieZkZ b l mdehg_gbc K\yav _jhylghkl_c [hevrbo mdehg_gbc b g kmfeyk ij_h[jZah\Zgbc DjZf_jZ gZ^ gbfb <_jhylghklguc kfuke nmgdp [hevrbo mdehg_gbc eh_bZev]gh_ l_hj_fu Bgl_]jZevgu_ l_hj_fu Eh <_jhylghklb [hevrbo mdehg_gbc dh]^Z mkeh\b_ DjZf_jZ g_ \uih

__k_f_klj

Современные проблемы анализа. lhebZgZebIbq_kdb_ nmgdpbb b bo DjZ_\u_ aZ\ZbZ_bbfZgZ lbiZ=bev[_j]Z ^ey ihebZgZebIbq_kdbo n h[h[s_gbc H[h[s_ggu_]Zjfhgbq_kdb_ nmgdpbb b djZ_\u_ aZ lmZgdZDjZ_\u_ aZ^Zqb lbiZ =Za_fZgZ b lbiZ DZje_fZgZ \ deZ nmgdpbc lj_^_evgu_ fgh`_kl\Z ihebZgZebIbq_kdbo ihebghfh\

Современные проблемы стохастики. L_hj_fu h koh^bfhklb b dhfiZdlg jZkij_^_e_gbc kmff g_aZ\bkbfo kemj_bZgZ_eo`gh_klvqbdg deZkkm [_a]jZgbqgh ^_ebfu_ jZkij_^_e_gbc Ki_dljZevgu_ ij_^klZ\ e_

nmgdpbc Mlhgg_gb_ ij_^_evguo l_hj_f :iijhdkbfZpby
 :iijhdkbfZpby \ aZ^ZqZo \ukhdhc jZaf_jghklb

4. Тематический план

1 k_f_klj

i	JZa^_eu l_fu	<k_ h qZk \	Nhjfu aZgylbc				
			e_dp b	k_fbg u	ijZdlbq_ _ aZgyl	eZ[hjZlh _ aZgyl	kZfhklhyl_ Zy jZ[hI
1.	F_lh^u _s_kl_gg ZgZebaZ	54			16		38
2.	F_lh^u nmgdpbhgz]h ZgZebaZ	54			16		38
<k_]h aZ k		108			32		76

k_f_klj

i	JZa^_eu l_fu	<k_ h qZk \	Nhjfu aZgylbc				
			e_dp b	k_fbg u	ijZdlbq_ _ aZgyl	eZ[hjZlh _ aZgyl	kZfhklhyl_ y jZ[hIZ
1.	JZaeh`_g _jhylghk o aZdhgh	54			16		38
2.	Ki_dljZev ij_^klZ\e y aZdhgh ijbf_g_gb	54			16		38
<k_]h aZ k		108			32		76

k_f_klj

i	JZa^_eu l_fu	<k_ h qZk \	Nhjfu aZgylbc				
			e_dp b	k_fbg u	ijZdlbq_ _ aZgyl	eZ[hjZlh _ aZgyl	kZfhklhyl_ y jZ[hIZ
1.	<_jhylghk _f_lh Ziijhdkbfz b	72			22		50
2.	;hevr_b_ mdehg_gb Dhgljhev	45 27			10		35
<k_]h aZ k		144			32		112

k_f_klj

i	JZa^_eu l_fu	<k_ h qZk \	Nhjfu aZgylbc				
			e_dp b	k_fbg u	ijZdlbq_ _ aZgyl	eZ[hjZlh _ aZgyl	kZfhklhyl_ y jZ[hIZ
1.	Kh\j_f_g _ijh[e ZgZebaZ	59			16		43
2.	Kh\j_f_g	58			16		42

Практические занятия 9-16. Большие уклонения

Kh\ f_klgh_ ijhql_gb = eZ\ jZ a [fj.b]b

__k_f_klj

Практические занятия №1-16. Современные проблемы анализа и стохастики

p p ил рид л й ihhq_j_^gh_ \ukl[micZ_xsb_δky]ekZ^Zfb ih l_fZ
 k\yaZgguf k fZ]bkl_jkdhc ^bkk_jlZpb_c
p й й рид л й ih^]hlhhdZnqZxsbfbky k\hbo ^hdeZ
 kh^_j`Zgbx b nhjf_ ih^Zqb

IhebZgZebIbq_kdb_ nmgdpbb b bo h[h[sbigZbyfZgZbZbZu_ a
 =bev[_j]Z ^ey ihebZgZebIbq_kdbo nmgdpbc b bo h[h[s_gbc
 nmgdpbb b djZ_\u_ aZ^Zqb >bjboe_ G_cfZgZ b lmZgdZj_ DjZ_
 DZje_fZgZ \ deZkkZo d\Zab]Zjfhgbq_kdbo nmgdpbc lj_^_eovgu_
 ihebgfhf\ L_hj_fu h koh^bfhklb b dhfiZdlghklb ^ey jZkij_^_e
 kemqZcguo _ebqbg ljbZgZ^e`ghk[va]jZgZgZgZkm^deZab_ jZkij_^_e
 Ki_dljZevgu_ ij_^klZ\ey_gby oZjZdl_jbklbq_kdbo nmgdpbc Mlh
 :iijhdkbfZpby kemqZcguo ijhp_kkh\ :iijhdkbfZpby \ aZ^ZqZo \u

Самостоятельная работа

AZ^Zgby ^ey kZfhklhyl_evghc jZ[hlu ijb\h^ylky \ ieZgZo ijZdlb

6. Критерии оценивания результатов освоения дисциплины (модуля)

6.1. Оценочные средства и критерии оценивания для текущей аттестации

Ijh_^_gb_ l_dms_]h \dhrffj]m é yk_f_kljZkms_kl\ey_lky gZ dZ
 ijZdlbq_kdhf aZgylibp_kk_ \uiheg_gby aZ^Zgbc ^hdeZ^h\ ^
 kZfhklhyl_evghc jZ[hlu

Djbl_jhp_gb\Zgby aZ^Zgbc ^hdeZ^h\

Ghjfu hp_gb\Zgby jZ[hlu

i i	Djbl_jbb	Dhebq_kl\h [Zeeh\
1	IheghlZ b dZq_kl\h \uiheg_gb	[ZeeZ
2	DZq_kl\h ih^Zqb b hnhjfe_gby	[ZeeZ

(*) <hafh`gZ]jZ^Zpby \ [ZeeZ

RdZeZ hp_gb\Zgby aZ^Zgby

i i	Hp_gdZ	Dhebq_kl\h [Zeeh\
1	Hlebqgh	5
2	Ohjhrh	4
3	M^h\ey_l\hjbl_evgh	3
4	G_m^h\ey_l\hjbl_evgh	0-2

6.2. Оценочные средства и критерии оценивания для промежуточной аттестации

Ijhf_`mlhqgZy Zll_klZpfb_yb-hrf k_f_kljZo hkms_kl\ey_lky ih
 ijhoh`^_gby aZq_lZ\uklZ\ey_lky ih j_amevIZIZf jZ[hlu klm^_glZ

>ey ihemq_gby aZq_lZ klm^uighlegb hve`_gZ hp_gdm g_
©m^h\le_l\hjbl_evgh aZql_gh^a \k_o \b^h\ jZ[hI<^ejhIb\g mfs_kœ nZdI
klZ\bIky ©g_ aZql_gh^a

Ijhf`mlhqqZy ZII_kfIZp_bfy_klj_ hkms_kI\ey_lky ihkj_^kI\hf
wdaZf_gZ

<hijhku d wdaZf_gm

1. Ij_^f_l l_bhj jZaeh`_gbc _jhylghklguo aZdhgh\
2. Ki_dIju aZdhgZ b bo k\yav kh ki_dIjZfb dhfihg_gI
3. G_jZaeh`bfu_ aZdhgu
4. Ihkljh_gb_ aZdhgh\ k aZ^Zggufb k\hckI\Zfb ki_dIjZ
5. NmgdpbhgZe ObgqbgZ b_]h k\hckI\Z
6. L_hj_fZ ObgqbgZ h nZdIhjbaZpbb
7. DeZkk ijh[e_fu_]hgbybkZ
8. L_hj_fZ DjZf_jZ
9. L_hj_fZ JZcdh\Z
10. L_hj_fZ EbggbdZ
11. DeZkk
12. J_r_lqZlu_ aZdhgu deZkkZ
13. AZdhgu_l_ba
14. Mklhcqb\hklv jZaeh`_gbc
15. :gZebIbq_kdb_ k\hckI\Z [_a]jZgbqgh ^_ebfuo aZdhgh\
16. D\Za_ba]jZgbqgh ^_ebfu_ aZdhgu
17. Wd\b\Ze_gIgu_ hij_wef_gblZjgu_ k\hckI\Z
18. :gZebIbq_kdb_ k\hckI\ZjZgbqgh ^_ebfuo aZdhgh\
19. >bkdj_lgu_- [d\Z]jZgbqgh ^_ebfu_ aZdhgu
20. Ijbf_g_gb_ d ij_^_evguf l_hj_fZf
21. F_lh^ k_jlhd b_]h fh^bnbdZpbb
22. EhdZevgu_ hp_gdb ^ey j_r_lqZluo jZkij_^_e_gbc
23. JZ\ghf_jgugdhb^ey j_r_lqZluo jZkij_^_e_gbc
24. Hp_gdZ iheghc \ZjbZpbb ^ey j_r_lqZluo jZkij_^_e_gbc
25. G_jZ\ghf_jgu_ hp_gdb
26. :iijhdkbfZpby \ ^bkdj_lghf g_j_r_lqZlhf kemqZ_
27. :iijhdkbfZpby ^ey Z[khexlgh g_ij_ju\guo jZkij_^_e_gbc
28. F_lh^ Kl_cgZ
29. F_lh^ Ij_m]hevguo nmgdpbc
30. AZZqb l_hjbb [hevrbo mdehg_gbc
31. Mkeh\b_ DjZf_jZ
32. Ij_h[jZah\Zgby EZieZkZ b DjZf_jZ
33. Nmgdpby mdehg_gbc
34. K\yav _jhylghkl_c [hevrbo mdehg_gbc ^ey kmff kemqZcg
ij_h[jZah\Zgbc DjZf_jZ gZ^ gbfb
35. <_jhylghklguc kfuke nmgdpbb mdehg_gbc
36. Ijbgpb[ihevrbo mdehg_gbc
37. Bgl_]jhdZevgu_ l_hj_fu
38. Bgl_]jZevgu_ l_hj_fu
39. EhdZevgu_ l_hj_fu
40. <_jhylghklb [hevrbo mdehg_gbc dh]^Z mkeh\b_ DjZf_jZ g_

H[IjZa p wdaZf_gZpbhggh]h aZ^Zgby

1. L_hj_fZ ObgqbgZ h nZdIhjbaZpbb
2. Nmgdpby mdehg_gbc

Djbl_jh_b\Zgby hl_IZ gZ wdaZf_g_
Ghjfu hp_gb\Zgby hl_IZ

< i i	KljmdlmjgZy qZklv [be_l	Dhebq_kl\h [Zee
1	ljZ\bevguc hl_l gZ dZ`^uc \hijhk	[Zeeh\

RdZeZ hp_gb\Zgby jZ[hlu

i i	Hp_gdZ	Dhebq_kl\h [Zeeh\
1	Hlebqgh	17-20
2	Ohjhrh	13-16
3	M^h\e_l\hjbl_evgh	9-12
4	G_m^h\e_l\hjbl_evgh	f_g__

ljhf`mlhggZy Zll_klZpkyf_klj_ hkms_kl\ey_lky ihkj^kl\hf
wdaZf_gZ Hp_gdZ aZ wdaZf_g \uklZ\ey_lky gZ hkgh_ hp_gd
kh[kl_gguc ^hdeZ^ MemqgZgb_ [Zp egdbafh`gh aZ Zdlb\gh_
ijZdlbq_kdbo aZgylbyo \ dZq_kl_ kemrZl_ey j_]meyjgh_ ihk_s
l^

7. Перечень основной и дополнительной учебной литературы

7.1. Основная литература

1. >Zebg]_j k_hjby nmgdpc\bl_evgh]h i_j_fm_g[h]hd b ijZdlbd
^ey \mak\ >Zebg]_j Kkbfhg`_gdh_ba^ i_j_jZf Fbhkd\Z
Ba^ZI_evkl\h XjZcl 242 k² <ukr__ h[jZah\Z ISBN 978-5-9916-8999-1. ²
L_dkl we_dljhguc evhZjZaehZnhjfZ XjZcl URL: <https://urait.ru/bcode/491235>

=fmjZg? k_hjby _jhylghkl_c b fZI_fZlbq_kdZy [gbZl b kyb dZ a
< ? =fmjZg 12- _ba^ Fhkd\ZBa^ZI_evkl\h XjZcl 479 k² <ukr__
h[jZah\Z ISBN 978-5-534-00211-9. ² L_dkl we_dljhguc H[jZah\ZI_ev
ieZlnhjfZ XjZcl URL: <https://urait.ru/bcode/488573>

3. Dj_f_j G R L_hjby _jhylghkl_c b fZI_fZlbq_kdZy kl
ijZdlbdmf ^ey \mah\ G² R_Da^f_jZ[j_p ^aifhkd\Z Ba^ZI_evk
XjZcl ² k² <ukr__ h[jZah\Z ISBN 978-5-534-10004-4. ² L_dkl
we_dljhguc H[jZah\ZI_evgyZy ieZlnhjfZ URL: <https://urait.ru/bcode/405438>

4. JZkmeh\ FD_lh^u j_r_gby ebg_cguo djZ_uo aZ^Zq dhfie_dkg
ihkh[b±Kfhe_gkd ©Wdkilj_kk^a

5. JZkmeh\ FD_lh^ khijy`_gby ZgZeblbq_kdbo nmgdpcb b g_dhl
±Kfhe_gkd Kfhe=M

7.2. Дополнительная литература

1. ;h]Zq_\ < B Kfheygh\ H = >_ckl\bl_evduc bBn\m\kdpbh
GBP ©J_]meyjgZy b oZhlbq_kdZy ^bgZfbdZ^a

2. ;jh\dh\ : : L_hjby _jhylghkl_cDgb`guc ^hf ©Eb[jhdhf^a

3. Ebggbd X < Hkljh\kdbdZaeh`_gby kemqZcguo _abqbg
Fhkd\Z -Ba©GZmdZ^a

4. FZdZjh\ ; F lh^dhjulh\ : G E_dpbb ih _±Klkl\Bgg
©;O_k_l_j[mj]^a

5. ljhohjh\ : < MrZdh\ < = MrZdh\ G = AZ^Zqb i
Hkgh\gu_ ihgyly ij_^_evgu_ l_hj_fu KemqZcgu_ i;FpkkkZ m
Ba^h ©D>M^a

6. JhIZjv < B L_hjby _jhylghkl_cBa©<ukrZy rdheZ^a

7. Mevygh\ I E ;Zo\Zeh\ : G >vyq_gdh F B DZaZjy
>_ckl\bl_evguc ZgZeb a F h kad Z Z Z q F a c N B A F : L E B L a
8. Rbjy_ \ : G <_jhy\ g h d g v F h k d \ Z - B a c F P G F H a.
9. ýHNDQDW.L Approximation Methods in Probability Theory, Springer, Switzerland, 2016.
10. Lindner A., Pan L., Sato K., On quasi-infinitely divisible distributions, Trans. Amer. Math. Soc., 370 (2018), 8483-8520.
11. = Z o h \ N D j Z \ u _ a Z F Z q b G Z m d Z
12. J Z k m e h \ D j Z F \ u _ a Z ^ Z h e b Z e y Z e b l b q _ k d b o n m g d p b c b g _ d h l l i j b e h ` _ g h k f h e _ g k d K l = M
13. Heinrich Begehr. Complex analytic methods for partial differential equations. ±Singapore: World Scientific Publishing, 1994.

7.3. Перечень ресурсов информационно-телекоммуникационной сети «Интернет»

- Kbkl_fZ ^bklZgpbhggh]h h[mq_gby Kfhe_gkdh]h]hkm^Z
<http://cdo.smolgu.ru>
 We_dljhggle bhl_qgZy kbkl_fZ <http://biblioteca.smolgu.ru>
 GZpbhgZevguc hldjuluc <http://www.jktbil.ru>
 H[s_jhkkbckdbc fZl_fZlbq <http://www.inhjhze.ru>

8. Материально-техническое обеспечение

Mq_[gZy Zm^blhjby ^ey ijh_ ^_gby aZgyIBC k_fbgZjkdh
 bg^b\b^mZevguo dhgkmevlZpbc l_dms_]h dhgljhey b ijhf_`mlh
 klZg^Zjlghe mq_[ghc f[_evx
 Ihf_s_gb_ ^ey kZfhklhyl_evgdhc fiyZ[h]jguæ deZkk k ^hklmihf
 ©Bgl_jg_l^a b WBHK Kfhe=M

9. Программное обеспечение

- Kaspersky Endpoint Security ^ey [bag_kZ KlZg^Zjlguc :H ©EZ[hjZlhjby
 e b p _ g a B y 161215-133553-1-6231.
 Microsoft Open License, e b p _ g a B y 4448 \ k h k l Z \ _
 1. Microsoft Windows Professional 7 Russian;
 2. Microsoft Office 2010 Russian.

