	fitbin 39	fitbin 40	fitbin 41	fitbin 42	fitbin 43	fitbin 44	fitbin 45	fitbin 46	fitbin 47	fitbin 48	fitbin 49	fitbin 50
alphaV	4.88(65)		4.77(61)	4.96(65)	4.80(62)	4.68(62)	4.52(49)	4.47(53)	4.24(60)	4.18(62)	4.18(65)	3.79(78)
betaV	0.09(13)	not	0.11(15)	0.09(13)	0.11(14)	0.13(16)	0.17(15)	0.18(16)	0.25(23)	0.27(24)	0.27(24)	0.43(38)
gammaV	1.9(6.6)e-4	yet	2.0(6.8)e-4	1.5(5.4)e-4	1.9(7.5)e-4	1.9(8.1)e-4	0.0002(10)	0.00020(89)	0.0002(10)	0.00022(97)	0.0002(12)	0.0002(11)
deltaV	4.17(17)	Converged	4.20(13)	4.13(22)	4.19(15)	4.22(12)	4.254(75)	4.264(77)	4.295(61)	4.301(60)	4.300(69)	4.332(51)
rhoV	9.5(4.0)		9.4(3.8)	9.7(4.0)	9.3(4.2)	9.3(4.6)	9.2(5.7)	9.2(4.9)	9.1(4.9)	9.1(5.0)	9.1(6.2)	9.0(5.4)
sigmaV	3.8(1.4)		3.7(1.3)	3.8(1.3)	3.7(1.3)	3.5(1.2)	3.30(90)	3.25(91)	2.96(90)	2.89(88)	2.90(89)	2.49(84)
atau	0.316(15)		0.316(15)	0.320(15)	0.319(15)	0.319(16)	0.318(16)	0.318(16)	0.318(16)	0.318(16)	0.318(17)	0.320(16)
fitbin	39	40	41	42	43	44	45	46	47	48	49	50
dof	33	32	31	30	29	28	27	26	25	24	23	22
FCN	40.02463		39.50651	35.49241	34.08026	33.90930	33.23480	33.18615	32.79318	32.76259	32.76249	31.69025
P – Value	0.1865		0.1406	0.2252	0.2363	0.2039	0.1896	0.1568	0.1363	0.1092	0.0853	0.0828
Status	Converged		Converged	Converged	Converged	Converged	Converged	Converged	Converged	Converged	Converged	Converged
Error Matrix	Accurate		Accurate	Accurate	Accurate	Accurate	Accurate	Accurate	Accurate	Accurate	Accurate	Accurate

for the fits of the bins 41 – 44, i finally used dqagi from the QUADPACK library for the numerical integration.

I used Romberg Integration, how its described in [NR] (p.134)

But instead of the trapezoidal rule, which has to be evaluated at the end – points, I used the extended midpoint evaluation
Furthermore I used the Integral transformation, which was given in [NR] on p.137, eq. 4.4.2, to handle the integration limit +infinity

[NR] - http://app90s.nrbook.cmecipes/fortran/index.html (Fortran Numerical R90)

DV Model used → $\exp\left(-deltaV - gammaV * s^{rhoV}\right) * \sin\left(alphaV + betaV * s^{sigmaV}\right)$

alphaV	5.29(15)	4.59(27)	3.91(85)	2.8(1.2)	2.5(1.5)	2.9(1.4)	2.2(1.8)	-19.44(55)	-13.43(50)	-15.14(53)	-13.09(55)	-3.5(4.7)	-6.78(56)
betaV	0.0362(92)	0.16(18)	0.37(35)	0.87(76)	1.02(94)	0.81(80)	1.2(1.1)	20.69(49)	15.01(42)	16.60(45)	14.59(45)	5.7(3.9)	8.66(40)
gammaV	0.00044(38)	0.00024(72)	0.0002(10)	0.0002(17)	0.0002(14)	0.0002(13)	0.0002(14)	0.00035(55)	0.00024(34)	0.00026(39)	0.00027(41)	0.0003(26)	0.00032(51)
deltaV	3.98(13)	4.22(17)	4.334(81)	4.408(67)	4.419(71)	4.398(97)	4.436(97)	4.512(63)	4.505(63)	4.514(68)	4.516(81)	4.47(17)	4.49(11)
rhoV	8.7(1.0)	9.1(3.3)	9.3(6.3)	9.1(8.9)	9.1(7.9)	9.0(7.0)	9.1(8.3)	8.3(1.7)	8.7(1.5)	8.6(1.6)	8.5(1.6)	8.5(9.4)	8.4(1.7)
sigmaV	4.67(31)	3.30(99)	2.65(89)	2.0(0.7)	1.85(76)	2.02(82)	1.75(76)	0.312(24)	0.389(33)	0.364(32)	0.405(37)	0.76(34)	0.588(60)
atau	0.316(14)	0.318(16)	0.318(16)	0.318(17)	0.318(16)	0.318(17)	0.319(17)	0.324(15)	0.325(16)	0.325(16)	0.324(16)	0.324(18)	0.324(16)
fitbin	51	52	53	54	55	56	57	58	59	60	61	62	63
dof	21	20	19	18	17	16	15	14	13	12	11	10	9
FCN	30.97340	30.34963	28.62621	27.10132	27.03160	26.93415	26.68981	22.73711	21.96749	21.90337	21.89555	21.75346	21.74053
P – Value	0.0741	0.0644	0.0721	0.0771	0.0576	0.0422	0.0314	0.0647	0.0559	0.0386	0.0252	0.0164	0.0097
Status	Converged*)	Converged**)	Converged	Converged	Converged	Converged	Converged	Converged	Converged	Converged	Converged	Failed	Converged
Error Matrix	Not Pos-Def	Accurate	Accurate	Accurate	Accurate	Accurate	Accurate	Not Pos-Def	Not Pos-Def	Not Pos-Def	Not Pos-Def	Approximate	Not Pos-Def