$\Gamma(\pi^+\pi^-\pi^+\pi^-)/\Gamma_{total}$ — Γ_{16}/Γ

VALUE (units 10^{-4})	*CL%*	*DOCUMENT ID*		*TECN*	*COMMENT*
<8.7	90	CORDIER	79	WIRE	$e^+e^- \to 4\pi$

$\Gamma(f_0(980)\gamma)/\Gamma_{total}$ — Γ_{14}/Γ

VALUE (units 10^{-3})	*CL%*	*DOCUMENT ID*		*TECN*	*COMMENT*
<2	90	DRUZHININ	87	ND	$e^+e^- \to \pi^0\pi^0\gamma$

$\Gamma(\pi^0 e^+e^-)/\Gamma_{total}$ — Γ_{19}/Γ

VALUE	*CL%*	*DOCUMENT ID*		*TECN*	*COMMENT*
$<1.2 \times 10^{-4}$	90	DOLINSKY	88	ND	$e^+e^- \to \pi^0 e^+e^-$

$\Gamma(\pi^0\eta\gamma)/\Gamma_{total}$ — Γ_{20}/Γ

VALUE (units 10^{-3})	*CL%*	*DOCUMENT ID*		*TECN*	*COMMENT*
<2.5	90	DOLINSKY	91	ND	$e^+e^- \to \pi^0\eta\gamma$

$\Gamma(a_0(980)\gamma)/\Gamma_{total}$ — Γ_{21}/Γ

VALUE (units 10^{-3})	*CL%*	*DOCUMENT ID*		*TECN*	*COMMENT*
<5	90	DOLINSKY	91	ND	$e^+e^- \to \pi^0\eta\gamma$

$\phi(1020)$ REFERENCES

DOLINSKY 91 PRPL 202 99 +Druzhinin, Dubrovin+ (NOVO)
BARKOV 88 SJNP 47 248 +Vasserman, Vorobyev, Ivanov+ (NOVO)
Translated from YAF 47 393.
DOLINSKY 88 SJNP 48 277 +Druzhinin, Dubrovin, Golubev+ (NOVO)
Translated from YAF 48 442.
DRUZHININ 87 ZPHY C37 1 +Dubrovin, Eidelman, Golubev+ (NOVO)
ARMSTRONG 86 PL 166B 245 +Bloodworth, Carney+ (ATHU, BARI, BIRM, CERN)
ATKINSON 86 ZPHY C30 521 + (BONN, CERN, GLAS, LANC, MCHS, CURIN+)
BEBEK 86 PRL 56 1893 +Berkelman, Blucher, Cassel+ (CLEO Collab.)
DAVENPORT 86 PR 33 2519 (TUFTS, ARIZ, FNAL, FSU, NDAM, VAND)
DIJKSTRA 86 ZPHY C31 375 +Bailey+ (ANIK, BRIS, CERN, CRAC, MPIM, RAL)
FRAME 86 NP B276 667 +Hughes, Lynch, Minto, McFadzean+ (GLAS)
GOLUBEV 86 SJNP 44 409 +Druzhinin, Ivanchenko, Perevedentsev+ (NOVO)
Translated from YAF 44 633.
ALBRECHT 85D PL 153B 343 +Drescher, Binder, Drews+ (ARGUS Collab.)
GOLUBEV 85 SJNP 41 756 +Druzhinin, Ivanchenko, Peryshkin+ (NOVO)
Translated from YAF 41 1183.
DRUZHININ 84 PL 144B 136 +Golubev, Ivanchenko, Peryshkin+ (NOVO)
KURDADZE 84 IYF 84-7 Preprint +Leltchouk, Pakhtusova, Sidorov+ (NOVO)
ARMSTRONG 83B NP B224 193 + (BARI, BIRM, CERN, MILA, CURIN+)
BARATE 83 PL 121B 449 +Bareyre, Bonamy+ (SACL, LOIC, SHMP, IND)
KURDADZE 83C JETPL 38 366 +Lelchuk, Root+ (NOVO)
Translated from ZETFP 38 306.
ARENTON 82 PR D25 2241 +Ayres, Diebold, May, Swallow+ (ANL, ILL)
PELLINEN 82 PS 25 599 +Roos (HELS)
DAUM 81 PL 100B 439 +Bardsley+ (AMST, BRIS, CERN, CRAC, MPIM+)
IVANOV 81 PL 107B 297 +Kurdadze, Lelchuk, Sidorov, Skrinsky+ (NOVO)
Also 82 Private Comm. Eidelman (NOVO)
VASSERMAN 81 PL 99B 62 +Kurdadze, Sidorov, Skrinsky+ (NOVO)
CORDIER 80 NP B172 13 +Delcourt, Eschstruth, Fulda+ (LALO)
BARKOV 79B IYF 79-93 Preprint +Zolotorev, Makarina, Mishakova+ (NOVO)
CORDIER 79 PL 81B 389 +Delcourt, Eschstruth, Fulda+ (LALO)
BUKIN 78B SJNP 27 521 +Kurdadze, Sidorov, Skrinsky+ (NOVO)
Translated from YAF 27 985.
BUKIN 78C SJNP 27 516 +Kurdadze, Serednyakov, Sidorov+ (NOVO)
Translated from YAF 27 976.
COOPER 78B NP B146 1 +Ganguli+ (TATA, CERN, CDEF, MADR)
LOSTY 78 NP B133 38 +Holmgren, Blokzijl+ (CERN, AMST, NIJM, OXF)
AKERLOF 77 PRL 39 861 +Alley, Bintinger, Ditzler+ (FNAL, MICH, PURD)
ANDREWS 77 PRL 38 198 +Fukushima, Harvey, Lobkowicz, May+ (ROCH)
BALDI 77 PL 68B 381 +Bohringer, Dorsaz, Hungerbuhler+ (GEVA)
CERRADA 77B NP B126 241 +Blockzijl, Heinen+ (AMST, CERN, NIJM, OXF)
COHEN 77 PRL 38 269 +Ayres, Diebold, Kramer, Pawlicki, Wicklund (ANL)
LAVEN 77 NP B127 43 +Otter, Klein+ (AACH3, BERL, CERN, LOIC, WIEN)
LYONS 77 NP B125 207 +Cooper, Clark (OXF)
COSME 76 PL 63B 352 +Courau, Dudelzak, Grelaud, Jean-Marie+ (ORSAY)
JULLIAN 76 Tbilisi 2 B19 (ORSAY)
KALBFLEISCH 76 PR D13 22 +Strand, Chapman (BNL, MICH)
PARROUR 76 PL 63B 357 +Grelaud, Cosme, Courau, Dudelzak+ (ORSAY)
PARROUR 76B PL 63B 362 +Grelaud, Cosme, Courau, Dudelzak+ (ORSAY)
KALBFLEISCH 75 PR D11 987 +Strand, Chapman (BNL, MICH)
AYRES 74 PRL 32 1463 +Diebold, Greene, Kramer, Levine+ (ANL)
BESCH 74 NP B70 257 +Hartmann, Kose, Krautschneider, Paul+ (BONN)
COSME 74 PL 48B 155 +Jean-Marie, Jullian, Laplanche+ (ORSAY)
COSME 74B PL 48B 159 +Jean-Marie, Jullian, Laplanche+ (ORSAY)
DEGROOT 74 NP B74 77 +Hoogland, Jongejans, Metzger+ (AMST, NIJM)
BALLAM 73 PR D7 3150 +Chadwick, Eisenberg, Bingham+ (SLAC, LBL)
BINNIE 73B PR D8 2789 +Carr, Debenham, Duane+ (LOIC, SHMP)
AGUILAR-... 72B PR D6 29 Aguilar-Benitez, Chung, Eisner, Samios (BNL)
ALVENSLEBEN 72 PRL 28 66 +Becker, Biggs, Binkley+ (MIT, DESY)
BORENSTEIN 72 PR D5 1559 +Danburg, Kalbfleisch+ (BNL, MICH)
COLLEY 72 NP B50 1 +Jobes, Riddiford, Griffiths+ (BIRM, GLAS)
BALAKIN 71 PL 34B 328 +Budker, Pakhtusova, Sidorov, Skrinsky+ (NOVO)
CHATELUS 71 LAL 1247 Thesis (STRB)
Also 70 PL 32 416 Bizot, Buon, Chatelus, Jeanjean+ (ORSAY)
HAYES 71 PR D4 899 +Imlay, Joseph, Keizer, Stein (CORN)
STOTTLE... 71 ORO 2504 170 Thesis Stottlemyer (UMD)
BIZOT 70 PL 32 416 +Buon, Chatelus, Jeanjean+ (ORSAY)
Also 69 Liverpool Sym. 69 Perez-y-Jorba
EARLES 70 PRL 25 1312 +Faissler, Gettner, Lutz, Moy, Tang+ (NEAS)
MOY 69 Thesis (NEAS)
LINDSEY 66 PR 147 913 +Smith (LRL)
LONDON 66 PR 143 1034 +Rau, Goldberg, Lichtman+ (BNL, SYRA) IGJPC
BADIER 65B PL 17 337 +Demoulin, Barloutaud+ (EPOL, SACL, AMST)
LINDSEY 65 PRL 15 221 +Smith (LRL)
LINDSEY 65 data included in LINDSEY 66.
SCHLEIN 63 PRL 10 368 +Slater, Smith, Stork, Ticho (UCLA) IGJP

OTHER RELATED PAPERS

KAMAL 92 PL B284 421 +Xu (ALBE)
GEORGIO... 85 PL 152B 428 Georgiopoulos+ (TUFTS, ARIZ, FNAL, FSU, NDAM+)
ARMENTEROS 63B Siena Conf. 2 70 +Edwards, Astier+ (CERN, CDEF)
GELFAND 63B PRL 11 438 +Miller, Nussbaum, Kirsch+ (COLU, RUTG)
BERTANZA 62 PRL 9 180 +Brisson, Connolly, Hart+ (BNL, SYRA)

$h_1(1170)$

$I^G(J^{PC}) = 0^-(1^{+-})$

$h_1(1170)$ MASS

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*CHG*	*COMMENT*
1170±20 OUR ESTIMATE					
• • • We do not use the following data for averages, fits, limits, etc. • • •					
1168± 4	ANDO	92	SPEC		$8\ \pi^- p \to \pi^+\pi^-\pi^0 n$
1166± 5±3	[1] ANDO	92	SPEC		$8\ \pi^- p \to \pi^+\pi^-\pi^0 n$
1190±60	[2] DANKOWY...	81	SPEC	0	$8\ \pi p \to 3\pi n$

[1] Average and spread of values using 2 variants of the model of BOWLER 75.
[2] Uses the model of BOWLER 75.

$h_1(1170)$ WIDTH

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*CHG*	*COMMENT*
360±40 OUR ESTIMATE					
• • • We do not use the following data for averages, fits, limits, etc. • • •					
345± 6	ANDO	92	SPEC		$8\ \pi^- p \to \pi^+\pi^-\pi^0 n$
375± 6±34	[3] ANDO	92	SPEC		$8\ \pi^- p \to \pi^+\pi^-\pi^0 n$
320±50	[4] DANKOWY...	81	SPEC	0	$8\ \pi p \to 3\pi n$

[3] Average and spread of values using 2 variants of the model of BOWLER 75.
[4] Uses the model of BOWLER 75.

$h_1(1170)$ DECAY MODES

	Mode	Fraction (Γ_i/Γ)
Γ_1	$\rho\pi$	seen

$h_1(1170)$ BRANCHING RATIOS

$\Gamma(\rho\pi)/\Gamma_{total}$ — Γ_1/Γ

VALUE	*DOCUMENT ID*		*TECN*	*COMMENT*
seen	ATKINSON	84	OMEG	20–70 $\gamma p \to \pi^+\pi^-\pi^0 p$
seen	DANKOWY...	81	SPEC	$8\ \pi p \to 3\pi n$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
seen	ANDO	92	SPEC	$8\ \pi^- p \to \pi^+\pi^-\pi^0 n$

$h_1(1170)$ REFERENCES

ANDO 92 PL B291 496 +Imai+ (KEK, KYOT, NIRS, SAGA, INUS, AKIT)
ATKINSON 84 NP B231 15 + (BONN, CERN, GLAS, LANC, MCHS, CURIN+)
DANKOWY... 81 PRL 46 580 Dankowych+ (TNTO, BNL, CARL, MCGI, OHIO)
BOWLER 75 NP B97 227 +Game, Aitchison, Dainton (OXFTP, DARE)