



www.sciencemag.org/cgi/content/full/338/6114/1569/DC1

Supplementary Material for

A New Boson with a Mass of 125 GeV Observed with the CMS Experiment at the Large Hadron Collider

The CMS Collaboration

To whom correspondence should be addressed: cms-spokesperson@cern.ch

Published 21 December 2012, *Science* **338**, 1569 (2012)
DOI: 10.1126/science.1230816

This PDF file includes:

Complete Author List

Author list for the Science CMS Higgs Paper

Yerevan Physics Institute, Yerevan, Armenia

S. Chatrchyan, V. Khachatryan, A.M. Sirunyan, A. Tumasyan

Institut für Hochenergiephysik der OeAW, Wien, Austria

W. Adam, E. Aguilo, T. Bergauer, M. Dragicevic, J. Erö, C. Fabjan¹, M. Friedl, R. Frühwirth¹, V.M. Ghete, M. Hoch, N. Hörmann, J. Hrubec, M. Jeitler¹, W. Kiesenhofer, V. Knünz, M. Krammer¹, I. Krätschmer, D. Liko, W. Majerotto, I. Mikulec, M. Pernicka[†], B. Rahbaran, C. Rohringer, H. Rohringer, R. Schöfbeck, J. Strauss, F. Szoncsó, A. Taurok, W. Waltenberger, G. Walzel, E. Widl, C.-E. Wulz¹

National Centre for Particle and High Energy Physics, Minsk, Belarus

V. Chekhovsky, I. Emelianchik, A. Litomin, V. Makarenko, V. Mossolov, N. Shumeiko, A. Solin, R. Stefanovitch, J. Suarez Gonzalez

Research Institute for Nuclear Problems, Minsk, Belarus

A. Fedorov, M. Korzhik, O. Missevitch, R. Zuyeski

Universiteit Antwerpen, Antwerpen, Belgium

M. Bansal, S. Bansal, W. Beaumont, T. Cornelis, E.A. De Wolf, D. Druzhkin, X. Janssen, S. Luyckx, L. Mucibello, S. Ochesanu, B. Roland, R. Rougny, M. Selvaggi, Z. Staykova, H. Van Haevermaet, P. Van Mechelen, N. Van Remortel, A. Van Spilbeeck

Vrije Universiteit Brussel, Brussel, Belgium

F. Blekman, S. Blyweert, J. D'Hondt, O. Devroede, R. Gonzalez Suarez, R. Goorens, A. Kalogeropoulos, M. Maes, A. Olbrechts, S. Tavernier, W. Van Doninck, L. Van Lancker, P. Van Mulders, G.P. Van Onsem, I. Vilella

Université Libre de Bruxelles, Bruxelles, Belgium

B. Clerbaux, G. De Lentdecker, V. Dero, J.P. Dewulf, A.P.R. Gay, T. Hreus, A. Léonard, P.E. Marage, A. Mohammadi, T. Reis, S. Rugovac, L. Thomas, C. Vander Velde, P. Vanlaer, J. Wang, J. Wickens

Ghent University, Ghent, Belgium

V. Adler, K. Beernaert, A. Cimmino, S. Costantini, G. Garcia, M. Grunewald, B. Klein, J. Lellouch, A. Marinov, J. Mccartin, A.A. Ocampo Rios, D. Ryckbosch, N. Strobbe, F. Thyssen, M. Tytgat, S. Walsh, E. Yazgan, N. Zaganidis

Université Catholique de Louvain, Louvain-la-Neuve, Belgium

S. Basegmez, G. Bruno, R. Castello, L. Ceard, J. De Favereau De Jeneret, C. Delaere, P. Demin, T. du Pree, D. Favart, L. Forthomme, A. Giammanco², G. Grégoire, J. Hollar, V. Lemaitre, J. Liao, O. Militaru, C. Nuttens, D. Pagano, A. Pin, K. Piotrkowski, N. Schul, J.M. Vizan Garcia

Université de Mons, Mons, Belgium

N. Belyi, T. Caebergs, E. Daubie, G.H. Hammad

Centro Brasileiro de Pesquisas Fisicas, Rio de Janeiro, Brazil

G.A. Alves, L. Brito, M. Correa Martins Junior, T. Martins, M.E. Pol, M.H.G. Souza

Universidade do Estado do Rio de Janeiro, Rio de Janeiro, Brazil

W.L. Aldá Júnior, W. Carvalho, A. Custódio, E.M. Da Costa, D. De Jesus Damiao, C. De Oliveira Martins, S. Fonseca De Souza, H. Malbouisson, M. Malek, D. Matos Figueiredo, L. Mundim, H. Nogima, V. Oguri, W.L. Prado Da Silva, A. Santoro, A. Sznajder, A. Vilela Pereira

Instituto de Fisica Teorica, Universidade Estadual Paulista, Sao Paulo, Brazil

T.S. Anjos³, C.A. Bernardes³, F.A. Dias⁴, T.R. Fernandez Perez Tomei, E.M. Gregores³, R.L. Iope, C. Lagana, S.M. Lietti, F. Marinho, P.G. Mercadante³, S.F. Novaes, Sandra S. Padula

Institute for Nuclear Research and Nuclear Energy, Sofia, Bulgaria

L. Dimitrov, V. Genchev⁵, P. Iaydjiev⁵, S. Piperov, M. Rodozov, S. Stoykova, G. Sultanov, V. Tcholakov, R. Trayanov, I. Vankov, M. Vutova

Institute of System Engineering and Robotics, Sofia, Bulgaria

C. Roumenin, D. Uzunova, R. Zahariev

University of Sofia, Sofia, Bulgaria

A. Dimitrov, R. Hadjiiska, V. Kozhuharov, L. Litov, B. Pavlov, P. Petkov

Institute of High Energy Physics, Beijing, China

J.G. Bian, G.M. Chen, H.S. Chen, K.L. He, C.H. Jiang, W.G. Li, D. Liang, S. Liang, X. Meng, G. Sun, H.S. Sun, J. Tao, J. Wang, X. Wang, Z. Wang, H. Xiao, M. Xu, M. Yang, J. Zang, X. Zhang, Z. Zhang, Z. Zhang, W.R. Zhao, Z. Zhu

State Key Lab. of Nucl. Phys. and Tech., Peking University, Beijing, China

C. Asawatangtrakuldee, Y. Ban, J. Cai, S. Guo, Y. Guo, W. Li, H.T. Liu, S. Liu, Y. Mao, S.J. Qian, H. Teng, D. Wang, Y.L. Ye, L. Zhang, B. Zhu, W. Zou

Universidad de Los Andes, Bogota, Colombia

C. Avila, J.P. Gomez, B. Gomez Moreno, A.F. Osorio Oliveros, J.C. Sanabria

Technical University of Split, Split, Croatia

N. Godinovic, D. Lelas, R. Plestina⁶, D. Polic, I. Puljak⁵

University of Split, Split, Croatia

Z. Antunovic, M. Kovac

Institute Rudjer Boskovic, Zagreb, Croatia

V. Brigljevic, S. Duric, K. Kadija, J. Luetic, D. Mekterovic, S. Morovic

University of Cyprus, Nicosia, Cyprus

A. Attikis, M. Galanti, G. Mavromanolakis, J. Mousa, C. Nicolaou, F. Ptochos, P.A. Razis

Charles University, Prague, Czech Republic

M. Finger, M. Finger Jr.

Academy of Scientific Research and Technology of the Arab Republic of Egypt, Egyptian Network of High Energy Physics, Cairo, Egypt

A. Aly, Y. Assran⁷, A. Awad, S. Elgammal⁸, A. Ellithi Kamel⁹, S. Khalil⁸, M.A. Mahmoud¹⁰, A. Mahrous, A. Radi^{11,12}

National Institute of Chemical Physics and Biophysics, Tallinn, Estonia

A. Hektor, M. Kadastik, K. Kannike, M. Müntel, M. Raidal, L. Rebane, A. Strumia, A. Tiko

Department of Physics, University of Helsinki, Helsinki, Finland

P. Eerola, G. Fedi, M. Voutilainen

Helsinki Institute of Physics, Helsinki, Finland

E. Anttila, J. Härkönen, A. Heikkinen, V. Karimäki, H.M. Katajisto, R. Kinnunen, M.J. Kortelainen, M. Kotamäki, T. Lampén, K. Lassila-Perini, S. Lehti, T. Lindén, P. Luukka, T. Mäenpää, T. Peltola, E. Tuominen, J. Tuominiemi, E. Tuovinen, D. Ungaro, T.P. Vanhala, L. Wendland

Lappeenranta University of Technology, Lappeenranta, Finland

K. Banzuzi, A. Karjalainen, A. Korpela, T. Tuuva

DSM/IRFU, CEA/Saclay, Gif-sur-Yvette, France

M. Anfreville, M. Besancon, S. Choudhury, M. Dejardin, D. Denegri, B. Fabbro, J.L. Faure, F. Ferri, S. Ganjour, F.X. Gentit, A. Givernaud, P. Gras, G. Hamel de Monchenault, P. Jarry, F. Kircher, M.C. Lemaire, E. Locci, J. Malcles, I. Mandjavidze, A. Nayak, J.P. Pansart, J. Rander, J.M. Reymond, A. Rosowsky, M. Titov, P. Verrecchia

Laboratoire Leprince-Ringuet, Ecole Polytechnique, IN2P3-CNRS, Palaiseau, France

J. Badier, S. Baffioni, F. Beaudette, E. Becheva, L. Benhabib, L. Bianchini, M. Bluj¹³, C. Broutin, P. Busson, M. Cerutti, D. Chamont, C. Charlot, N. Daci, T. Dahms, M. Dalchenko, L. Dobrzynski, Y. Geerebaert, R. Granier de Cassagnac, M. Haguenaue, P. Hennion, G. Milleret, P. Miné, C. Mironov, I.N. Naranjo, M. Nguyen, C. Ochando, P. Paganini, T. Romanteau, D. Sabes, R. Salerno, A. Sartirana, Y. Sirois, C. Thiebaux, C. Veelken, A. Zabi

Institut Pluridisciplinaire Hubert Curien, Université de Strasbourg, Université de Haute Alsace Mulhouse, CNRS/IN2P3, Strasbourg, France

J.-L. Agram¹⁴, J. Andrea, A. Besson, D. Bloch, D. Bodin, J.-M. Brom, M. Cardaci, E.C. Chabert, C. Collard, E. Conte¹⁴, F. Drouhin¹⁴, J.-C. Fontaine¹⁴, D. Gelé, U. Goerlach, C. Goetzmann, L. Gross, D. Huss, P. Juillot, E. Kieffer, A.-C. Le Bihan, J. Pansanel, Y. Patois, P. Van Hove

Centre de Calcul de l'Institut National de Physique Nucleaire et de Physique des Particules, CNRS/IN2P3, Villeurbanne, France, Villeurbanne, France

D. Boutigny, D. Mercier

Université de Lyon, Université Claude Bernard Lyon 1, CNRS-IN2P3, Institut de Physique Nucléaire de Lyon, Villeurbanne, France

G. Baulieu, S. Beauceron, N. Beaupere, M. Bedjidian, O. Bondu, G. Boudoul, S. Brochet, J. Chasserat, R. Chierici⁵, C. Combaret, D. Contardo, P. Depasse, H. El Mamouni, J. Fay, S. Gascon, N. Giraud, M. Gouzevitch, R. Haroutunian, B. Ille, T. Kurca, M. Lethuillier, N. Lumb, H. Mathez, L. Mirabito, S. Perries, L. Sgandurra, V. Sordini, Y. Tschudi, M. Vander Donckt, P. Verdier, S. Viret

E. Andronikashvili Institute of Physics, Academy of Science, Tbilisi, Georgia

V. Roinishvili, L. Rurua

Institute of High Energy Physics and Informatization, Tbilisi State University, Tbilisi, Georgia

N. Amaglobeli, I. Bagaturia, B. Chiladze, R. Kvatadze, D. Lomidze, R. Shanidze, Z. Tsamalaidze¹⁵

RWTH Aachen University, I. Physikalisches Institut, Aachen, Germany

R. Adolphi, C. Autermann, S. Beranek, R. Brauer, W. Braunschweig, B. Calpas, M. Edelhoff, L. Feld, N. Heracleous, O. Hindrichs, R. Jussen, W. Karpinski, K. Klein, K. Lübelmeyer, J. Merz, A. Ostapchuk, D. Pandoulas, A. Perieanu, F. Raupach, J. Sammet, S. Schael, D. Schmitz, A. Schultz von Dratzig, R. Siedling, D. Sprenger, H. Weber, B. Wittmer, M. Wlochal, V. Zhukov¹⁶

RWTH Aachen University, III. Physikalisches Institut A, Aachen, Germany

M. Ata, P. Biallass, J. Caudron, E. Dietz-Laursonn, D. Duchardt, M. Erdmann, R. Fischer, A. Güth, T. Hebbeker, C. Heidemann, G. Hilgers, K. Hoepfner, C. Hof, T. Klimkovich, D. Klingebiel, P. Kreuzer, C.

Magass, M. Merschmeyer, A. Meyer, M. Olschewski, P. Papacz, B. Philipps, H. Pieta, H. Reithler, S.A. Schmitz, L. Sonnenschein, M. Sowa, J. Steggemann, D. Teyssier, M. Weber

RWTH Aachen University, III. Physikalisches Institut B, Aachen, Germany

M. Bontenackels, V. Cherepanov, Y. Erdogan, G. Flügge, H. Geenen, M. Geisler, W. Haj Ahmad, F. Hoehle, B. Kargoll, T. Kress, Y. Kuessel, J. Lingemann⁵, A. Nowack, L. Perchalla, O. Pooth, P. Sauerland, A. Stahl, M.H. Zoeller

Deutsches Elektronen-Synchrotron, Hamburg, Germany

M. Aldaya Martin, J. Behr, W. Behrenhoff, U. Behrens, M. Bergholz¹⁷, A. Bethani, K. Borras, A. Burgmeier, A. Cakir, L. Calligaris, A. Campbell, E. Castro, F. Costanza, D. Dammann, C. Diez Pardos, G. Eckerlin, D. Eckstein, A. Flossdorf, G. Flucke, A. Geiser, I. Glushkov, P. Goettlicher, A. Grebenyuk, P. Gunnellini, S. Habib, J. Hauk, G. Hellwig, H. Jung, M. Kasemann, P. Katsas, C. Kleinwort, H. Kluge, A. Knutsson, M. Krämer, D. Krücker, E. Kuznetsova, W. Lange, J. Leonard, B. Lewendel, W. Lohmann¹⁷, B. Lutz, R. Mankel, I. Marfín, M. Marienfeld, I.-A. Melzer-Pellmann, A.B. Meyer, J. Mnich, C. Muhl, A. Mussgiller, S. Naumann-Emme, O. Novgorodova, J. Olzem, A. Parenti, H. Perrey, A. Petrukhin, D. Pitzl, A. Raspereza, P.M. Ribeiro Cipriano, C. Riedl, E. Ron, C. Rosemann, M. Rosin, J. Salfeld-Nebgen, R. Schmidt¹⁷, T. Schoerner-Sadenius, N. Sen, A. Spiridonov, M. Stein, J. Tomaszewska, D. Volyanskyy, R. Walsh, C. Wissing, C. Youngman

University of Hamburg, Hamburg, Germany

V. Blobel, J. Draeger, H. Enderle, J. Erfle, U. Gebbert, M. Görner, T. Hermanns, R.S. Höing, K. Kaschube, G. Kaussen, H. Kirschenmann, R. Klanner, J. Lange, B. Mura, F. Nowak, T. Peiffer, N. Pietsch, D. Rathjens, C. Sander, H. Schettler, P. Schleper, E. Schlieckau, A. Schmidt, M. Schröder, T. Schum, M. Seidel, J. Sibille¹⁸, V. Sola, H. Stadie, G. Steinbrück, J. Thomsen, L. Vanelderden

Institut für Experimentelle Kernphysik, Karlsruhe, Germany

C. Barth, J. Bauer, J. Berger, P. Blüm, C. Böser, V. Buege, Z.Y. Chen, S. Chowdhury, T. Chwalek, D. Daeuwel, W. De Boer, A. Descroix, A. Dierlamm, G. Dirkes, M. Fahrner, M. Feindt, U. Felzmann, M. Frey, A. Furgeri, I. Gebauer, A. Gessler, J. Gruschke, M. Guthoff⁵, C. Hackstein, F. Hartmann⁵, F. Hauler, T. Hauth⁵, S. Heier, S.M. Heindl, M. Heinrich, A. Heiss, H. Held, K.H. Hoffmann, S. Honc, U. Husemann, M. Imhof, C. Jung, S. Junghans, I. Katkov¹⁶, U. Kerzel, D. Knoblauch, J.R. Komaragiri, M. Kräber, T. Kuhr, T. Liamsuwan, P. Lobelle Pardo, D. Martschei, A. Menchikov, X. Mol, D. Mörmann, S. Mueller, Th. Müller, D. Neuberger, M.B. Neuland, M. Niegel, A. Nürnberg, O. Oberst, A. Oehler, T. Ortega Gomez, J. Ott, C. Piasecki, A. Poschlad, G. Quast, K. Rabbertz, F. Ratnikov, N. Ratnikova, M. Renz, S. Röcker, F. Roederer, A. Sabellek, C. Saout, A. Scheurer, D. Schieferdecker, P. Schieferdecker, F.-P. Schilling, M. Schmanau, G. Schott, W. Schwerdtfeger, H.J. Simonis, A. Skiba, F.M. Stober, A. Theel, W.H. Thümmel, D. Troendle, A. Trunov, R. Ulrich, J. Wagner-Kuhr, S. Wayand, M. Weber, T. Weiler, M. Zeise, E.B. Ziebarth, M. Zvada

Institute of Nuclear Physics "Demokritos", Aghia Paraskevi, Greece

G. Anagnostou, G. Daskalakis, T. Geralis, S. Kesisoglou, A. Kyriakis, D. Loukas, I. Manolagos, A. Markou, C. Markou, C. Mavrommatis, E. Ntomari

University of Athens, Athens, Greece

L. Gouskos, A. Panagiotou, N. Saoulidou

University of Ioánnina, Ioánnina, Greece

I. Evangelou, C. Foudas, P. Kokkas, N. Manthos, I. Papadopoulos, V. Patras, F.A. Triantis

KFKI Research Institute for Particle and Nuclear Physics, Budapest, Hungary

G. Bencze, C. Hajdu, P. Hidas, D. Horvath¹⁹, F. Sikler, V. Veszpremi, G. Vesztergombi²⁰, P. Zalan

Institute of Nuclear Research ATOMKI, Debrecen, Hungary

N. Beni, S. Czellar, A. Fenyvesi, J. Molnar, J. Palinkas, Z. Szillasi

University of Debrecen, Debrecen, Hungary

J. Karacsi, P. Raics, Z.L. Trocsanyi, B. Ujvari, G. Zilizi

Panjab University, Chandigarh, India

S.B. Beri, V. Bhandari, V. Bhatnagar, N. Dhingra, R. Gupta, M. Kaur, J.M. Kohli, M.Z. Mehta, N. Nishu, L.K. Saini, A. Sharma, J.B. Singh

University of Delhi, Delhi, India

Ashok Kumar, Arun Kumar, S. Ahuja, A. Bhardwaj, S. Chatterji, B.C. Choudhary, P. Gupta, S. Malhotra, M. Naimuddin, K. Ranjan, V. Sharma, R.K. Shivpuri

Saha Institute of Nuclear Physics, Kolkata, India

S. Banerjee, S. Bhattacharya, S. Dutta, B. Gomber, Sa. Jain, Sh. Jain, R. Khurana, S. Sarkar, M. Sharan

Bhabha Atomic Research Centre, Mumbai, India

A. Abdulsalam, R.K. Choudhury, D. Dutta, M. Ghodgaonkar, S. Kailas, S.K. Kataria, V. Kumar, P. Mehta, A.K. Mohanty⁵, L.M. Pant, P. Shukla, A. Topkar

Tata Institute of Fundamental Research - EHEP, Mumbai, India

T. Aziz, S. Chendvankar, P.V. Deshpande, S.N. Ganguli, S. Ganguly, M. Guchait²¹, A. Gurtu²², M. Maity²³, K. Mazumdar, G.B. Mohanty, B. Parida, M.R. Patil, R. Raghavan, K. Sudhakar, N. Wickramage

Tata Institute of Fundamental Research - HECR, Mumbai, India

B.S. Acharya, S. Banerjee, S. Bheesette, S. Dugad, S.D. Kalmani, M.R. Krishnaswamy, V.R. Lakkireddi, N.K. Mondal, V.S. Narasimham, N. Panyam, P. Verma

Institute for Research in Fundamental Sciences (IPM), Tehran, Iran

F. Ardalan, H. Arfaei²⁴, H. Bakhshiansohi, S.M. Etesami²⁵, A. Fahim²⁴, M. Hashemi²⁶, A. Jafari, M. Khakzad, M. Mohammadi Najafabadi, S. Paktinat Mehdiabadi, B. Safarzadeh²⁷, M. Zeinali

INFN Sezione di Bari ^a, Università di Bari ^b, Politecnico di Bari ^c, Bari, Italy

M. Abbrescia^{a,b}, L. Barbone^{a,b}, C. Calabria^{a,b,5}, S.S. Chhibra^{a,b}, A. Colaleo^a, D. Creanza^{a,c}, N. De Filippis^{a,c,5}, M. De Palma^{a,b}, G. De Robertis^a, G. Donvito^a, L. Fiore^a, G. Iaselli^{a,c}, F. Loddo^a, G. Maggi^{a,c}, M. Maggi^a, N. Manna^{a,b}, B. Marangelli^{a,b}, S. My^{a,c}, S. Natali^{a,b}, S. Nuzzo^{a,b}, N. Pacifico^a, A. Pompili^{a,b}, G. Pugliese^{a,c}, A. Ranieri^a, F. Romano^{a,c}, G. Selvaggi^{a,b}, L. Silvestris^a, G. Singh^{a,b}, V. Spinosa^a, R. Venditti^{a,b}, P. Verwilligen^a, G. Zito^a

INFN Sezione di Bologna ^a, Università di Bologna ^b, Bologna, Italy

G. Abbiendi^a, A.C. Benvenuti^a, D. Bonacorsi^{a,b}, S. Braibant-Giacomelli^{a,b}, L. Brigliadori^{a,b}, P. Capiluppi^{a,b}, A. Castro^{a,b}, F.R. Cavallo^a, M. Cuffiani^{a,b}, G.M. Dallavalle^a, F. Fabbri^a, A. Fanfani^{a,b}, D. Fasanella^{a,b}, P. Giacomelli^a, C. Grandi^a, L. Guiducci^{a,b}, S. Marcellini^a, G. Masetti^a, M. Meneghelli^{a,b,5}, A. Montanari^a, F.L. Navarria^{a,b}, F. Odorici^a, A. Perrotta^a, F. Primavera^{a,b}, A.M. Rossi^{a,b}, T. Rovelli^{a,b}, G.P. Siroli^{a,b}, R. Travaglini^{a,b}

INFN Sezione di Catania ^a, Università di Catania ^b, Catania, Italy

S. Albergo^{a,b}, G. Cappello^{a,b}, M. Chiorboli^{a,b}, S. Costa^{a,b}, F. Noto^a, R. Potenza^{a,b}, M.A. Saizu^{a,28}, A. Tricomi^{a,b}, C. Tuve^{a,b}

INFN Sezione di Firenze ^a, Università di Firenze ^b, Firenze, Italy

G. Barbagli^a, V. Ciulli^{a,b}, C. Civinini^a, R. D'Alessandro^{a,b}, E. Focardi^{a,b}, S. Frosali^{a,b}, E. Gallo^a, C. Genta^a, S. Gonzi^{a,b}, M. Meschini^a, S. Paoletti^a, G. Parrini^a, R. Ranieri^a, G. Sguazzoni^a, A. Tropiano^{a,b}

INFN Laboratori Nazionali di Frascati, Frascati, Italy

L. Benussi, S. Bianco, S. Colafranceschi²⁹, F. Fabbri, D. Piccolo

INFN Sezione di Genova^a, Università di Genova^b, Genova, Italy

P. Fabbri^a, S. Farinon^a, M. Greco^a, R. Musenich^a, S. Tosi^{a,b}

INFN Sezione di Milano-Bicocca^a, Università di Milano-Bicocca^b, Milano, Italy

A. Benaglia^a, L. Carbone^a, P. D'Angelo^a, F. De Guio^{a,b}, L. Di Matteo^{a,b,5}, P. Dini^a, F.M. Farina^{a,b}, S. Fiorendi^{a,b}, S. Gennai^{a,5}, A. Ghezzi^{a,b}, S. Malvezzi^a, R.A. Manzoni^{a,b}, A. Martelli^{a,b}, A. Massironi^{a,b}, D. Menasce^a, L. Moroni^a, P. Negri^{a,b†}, M. Paganoni^{a,b}, D. Pedrini^a, A. Pullia^{a,b}, S. Ragazzi^{a,b}, N. Redaelli^a, S. Sala^a, T. Tabarelli de Fatis^{a,b}

INFN Sezione di Napoli^a, Università di Napoli "Federico II"^b, Napoli, Italy

S. Buontempo^a, C.A. Carrillo Montoya^a, N. Cavallo^{a,30}, A. De Cosa^{a,b,5}, O. Dogangun^{a,b}, F. Fabozzi^{a,30}, A.O.M. Iorio^{a,b}, L. Lista^a, S. Meola^{a,31}, M. Merola^a, P. Paolucci^{a,5}

INFN Sezione di Padova^a, Università di Padova^b, Università di Trento (Trento)^c, Padova, Italy

P. Azzi^a, N. Bacchetta^{a,5}, M. Bellato^a, M. Benettoni^a, M. Biasotto^{a,32}, D. Bisello^{a,b}, A. Branca^{a,b,5}, R. Carlin^{a,b}, P. Checchia^a, T. Dorigo^a, U. Dosselli^a, F. Fanzago^a, F. Gasparini^{a,b}, U. Gasparini^{a,b}, P. Giubileo^{a,b}, F. Gonella^a, A. Gozzelino^a, M. Gulmini^{a,32}, K. Kanishchev^{a,c}, S. Lacaprara^a, I. Lazzizzera^{a,c}, M. Loretta^a, M. Margoni^{a,b}, G. Maron^{a,32}, M. Mazzucato^a, A.T. Meneguzzo^{a,b}, F. Montecassiano^a, M. Passaseo^a, J. Pazzini^{a,b}, M. Pegoraro^a, N. Pozzobon^{a,b}, P. Ronchese^{a,b}, F. Simonetto^{a,b}, E. Torassa^a, M. Tosi^{a,b}, S. Vanini^{a,b}, S. Ventura^a, P. Zotto^{a,b}, G. Zumerle^{a,b}

INFN Sezione di Pavia^a, Università di Pavia^b, Pavia, Italy

U. Berzano^a, M. Gabusi^{a,b}, S.P. Ratti^{a,b}, C. Riccardi^{a,b}, P. Torre^{a,b}, P. Vitulo^{a,b}

INFN Sezione di Perugia^a, Università di Perugia^b, Perugia, Italy

M. Biasini^{a,b}, G.M. Bilei^a, L. Fanò^{a,b}, P. Lariccia^{a,b}, A. Lucaroni^{a,b,5}, G. Mantovani^{a,b}, M. Menichelli^a, A. Nappi^{a,b†}, D. Passeri^{a,b}, P. Placidi^{a,b}, F. Romeo^{a,b}, A. Saha^a, A. Santocchia^{a,b}, L. Servoli^a, A. Spiezia^{a,b}, S. Taroni^{a,b}, M. Valdata^{a,b}

INFN Sezione di Pisa^a, Università di Pisa^b, Scuola Normale Superiore di Pisa^c, Pisa, Italy

F. Angelini^a, S. Arezzini^a, P. Azzurri^{a,c}, G. Bagliesi^a, A. Basti^a, R. Bellazzini^a, J. Bernardini^a, T. Boccali^a, F. Bosi^a, A. Brez^a, G. Broccolo^{a,c}, F. Calzolari^a, A. Carboni^a, R. Castaldi^a, C. Cerri^a, A. Ciampa^a, R.T. D'Agnolo^{a,c,5}, R. Dell'Orso^a, F. Fiori^{a,b,5}, L. Foà^{a,c}, A. Giassi^a, S. Giusti^a, A. Kraan^a, L. Latronico^a, F. Ligabue^{a,c}, S. Linari^a, T. Lomtadze^a, L. Martini^{a,33}, M. Massa^a, M.M. Massai^a, E. Mazzeoni^a, A. Messineo^{a,b}, A. Moggi^a, F. Palla^a, F. Raffaelli^a, A. Rizzi^{a,b}, G. Sanguineti^a, G. Segneri^a, A.T. Serban^{a,34}, P. Spagnolo^a, G. Spandre^a, P. Squillacioti^{a,5}, R. Tenchini^a, G. Tonelli^{a,b}, A. Venturi^a, P.G. Verdini^a

INFN Sezione di Roma^a, Università di Roma^b, Roma, Italy

S. Baccaro^{a,35}, L. Barone^{a,b}, A. Bartoloni^a, F. Cavallari^a, I. Dafinei^a, D. Del Re^{a,b}, M. Diemoz^a, C. Fanelli^{a,b}, M. Grassi^{a,b,5}, E. Longo^{a,b}, P. Meridiani^{a,5}, F. Micheli^{a,b}, S. Nourbakhsh^{a,b}, G. Organtini^{a,b}, R. Paramatti^a, S. Rahatlou^{a,b}, M. Sigamani^a, L. Soffi^{a,b}, I.G. Talamo^a

INFN Sezione di Torino^a, Università di Torino^b, Università del Piemonte Orientale (Novara)^c, Torino, Italy

N. Amapane^{a,b}, R. Arcidiacono^{a,c}, S. Argiro^{a,b}, M. Arneodo^{a,c}, C. Biino^a, N. Cartiglia^a, M. Costa^{a,b}, N. Demaria^a, C. Mariotti^{a,5}, S. Maselli^a, E. Migliore^{a,b}, V. Monaco^{a,b}, M. Musich^{a,5}, M.M. Obertino^{a,c}, N. Pastrone^a, M. Pelliccioni^a, C. Peroni^{a,b}, A. Potenza^{a,b}, A. Romero^{a,b}, M. Ruspa^{a,c}, R. Sacchi^{a,b}, A. Solano^{a,b}, A. Staiano^a

INFN Sezione di Trieste^a, Università di Trieste^b, Trieste, Italy

F. Ambroglini^{a,b}, S. Belforte^a, V. Candelise^{a,b}, M. Casarsa^a, F. Cossutti^a, G. Della Ricca^{a,b}, B. Gobbo^a, C. Kavka^a, M. Marone^{a,b,5}, D. Montanino^{a,b,5}, A. Penzo^a, A. Schizzi^{a,b}

Kangwon National University, Chunchon, Korea

T.Y. Kim, S.K. Nam

Kyungpook National University, Daegu, Korea

S. Chang, J. Chung, S.W. Ham, D. Han, J. Kang, D.H. Kim, G.N. Kim, J.E. Kim, K.S. Kim, D.J. Kong, M.W. Lee, Y.D. Oh, H. Park, S.R. Ro, D. Son, D.C. Son, J.S. Suh

Chonnam National University, Institute for Universe and Elementary Particles, Kwangju, Korea

J.Y. Kim, Zero J. Kim, S. Song

Korea University, Seoul, Korea

S. Choi, D. Gyun, B. Hong, M. Jo, Y. Jo, M. Kang, H. Kim, T.J. Kim, K.S. Lee, D.H. Moon, S.K. Park, Y. Roh, K.S. Sim

University of Seoul, Seoul, Korea

M. Choi, G. Hahn, S. Kang, H. Kim, J.H. Kim, C. Park, I.C. Park, S. Park, G. Ryu

Sungkyunkwan University, Suwon, Korea

Y. Choi, Y.K. Choi, J. Goh, M.S. Kim, E. Kwon, B. Lee, J. Lee, S. Lee, H. Seo, I. Yu

Vilnius University, Vilnius, Lithuania

M. Janulis, A. Juodagalvis, R. Naujikas

Centro de Investigacion y de Estudios Avanzados del IPN, Mexico City, Mexico

H. Castilla-Valdez, E. De La Cruz-Burelo, I. Heredia-de La Cruz, R. Lopez-Fernandez, J. Martínez-Ortega, A. Sánchez-Hernández, L.M. Villaseñor-Cendejas

Universidad Iberoamericana, Mexico City, Mexico

S. Carrillo Moreno, F. Vazquez Valencia

Benemerita Universidad Autonoma de Puebla, Puebla, Mexico

H.A. Salazar Ibarguen

Universidad Autónoma de San Luis Potosí, San Luis Potosí, Mexico

E. Casimiro Linares, A. Morelos Pineda, M.A. Reyes-Santos

University of Auckland, Auckland, New Zealand

P. Allfrey, D. Krofcheck

University of Canterbury, Christchurch, New Zealand

A.J. Bell, N. Bernardino Rodrigues, A.P.H. Butler, P.H. Butler, R. Doesburg, D. Pfeiffer, S. Reucroft, H. Silverwood, J.C. Williams

National Centre for Physics, Quaid-I-Azam University, Islamabad, Pakistan

M. Ahmad, M.H. Ansari, M.I. Asghar, J. Butt, H.R. Hoorani, S. Khalid, W.A. Khan, T. Khurshid, S. Qazi, M.A. Shah, M. Shoaib

National Centre for Nuclear Research, Swierk, Poland

H. Bialkowska, B. Boimska, T. Frueboes, R. Gokiel, L. Gosciolo, M. Górski, M. Kazana, I.M. Kudla, K. Nawrocki, K. Romanowska-Rybinska, M. Szeleper, G. Wrochna, P. Zalewski

Institute of Experimental Physics, Faculty of Physics, University of Warsaw, Warsaw, Poland

G. Brona, K. Bunkowski, M. Cwiok, H. Czyrkowski, R. Dabrowski, W. Dominik, K. Doroba, A. Kalinowski, M. Konecki, J. Krolkowski, W. Oklinski, K. Pozniak³⁶, W. Zabolotny³⁶, P. Zych

Warsaw University of Technology, Institute of Electronic Systems, Warsaw, Poland

G. Kasprowicz, R. Romaniuk

Laboratório de Instrumentação e Física Experimental de Partículas, Lisboa, Portugal

R. Alemany-Fernandez, N. Almeida, P. Bargassa, A. David, P. Faccioli, P.G. Ferreira Parracho, M. Gallinaro, P.Q. Ribeiro, J. Seixas, J. Silva, J. Varela, P. Vischia

Joint Institute for Nuclear Research, Dubna, Russia

S. Afanasiev, I. Belotelov, P. Bunin, Y. Ershov, M. Gavrilenko, A. Golunov, I. Golutvin, N. Gorbounov, I. Gorbunov, I. Gramenitski, V. Kalagin, A. Kamenev, V. Karjavin, V. Konoplyanikov, V. Korenkov, G. Kozlov, A. Kurenkov, A. Lanev, A. Makankin, A. Malakhov, I. Melnitchenko, V.V. Mitsyn, P. Moisenz, D. Oleynik, A. Orlov, V. Palichik, V. Perelygin, A. Petrosyan, M. Savina, R. Semenov, S. Shmatov, S. Shulha, A. Skachkova, N. Skatchkov, V. Smetannikov, V. Smirnov, D. Smolin, E. Tikhonenko, S. Vasil'ev, A. Volodko, A. Zarubin, V. Zhiltsov

Petersburg Nuclear Physics Institute, Gatchina (St. Petersburg), Russia

S. Evstyukhin, V. Golovtsov, Y. Ivanov, V. Kim, P. Levchenko, V. Murzin, V. Oreshkin, I. Smirnov, V. Sulimov, L. Uvarov, S. Vavilov, A. Vorobyev, An. Vorobyev

High Temperature Technology Center of Research & Development Institute of Power Engineering (HTTC RDIPE), Moscow, Russia

Institute for Nuclear Research, Moscow, Russia

Yu. Andreev, A. Anisimov, A. Dermenev, S. Gninenko, N. Golubev, D. Gorbunov, A. Karneyeu, M. Kirsanov, N. Krasnikov, V. Matveev, A. Pashenkov, G. Pivovarov, V.E. Postoev, V. Rubakov, V. Shirinyants, A. Solovey, D. Tlisov, A. Toropin, S. Troitsky

Institute for Theoretical and Experimental Physics, Moscow, Russia

V. Epshteyn, M. Erofeeva, V. Gavrilov, V. Kaftan[†], I. Kiselevich, V. Kolosov, A. Konoplyannikov, M. Kossov, Y. Kozlov, A. Krokhotin, D. Litvintsev, N. Lychkovskaya, A. Oulianov, V. Popov, G. Safronov, S. Semenov, I. Shreyber, N. Stepanov, V. Stolin, E. Vlasov, V. Zaytsev, A. Zhokin

Moscow State University, Moscow, Russia

A. Belyaev, E. Boos, V. Bunichev, A. Demiyarov, M. Dubinin⁴, L. Dudko, A. Ershov, A. Gribushin, V. Ilyin, A. Kaminskiy³⁷, V. Klyukhin, O. Kodolova, V. Korotkikh, A. Kryukov, I. Lokhtin, A. Markina, S. Obraztsov, M. Perfilov, S. Petrushanko, A. Popov, A. Proskuryakov, L. Sarycheva[†], V. Savrin, A. Snigirev, I. Vardanyan

P.N. Lebedev Physical Institute, Moscow, Russia

V. Andreev, M. Azarkin, I. Dremin, M. Kirakosyan, A. Leonidov, G. Mesyats, S.V. Rusakov, A. Vinogradov

State Research Center of Russian Federation, Institute for High Energy Physics, Protvino, Russia

I. Azhgirey, I. Bayshev, S. Bitioukov, V. Grishin⁵, V. Kachanov, A. Kalinin, D. Konstantinov, A. Korablev, V. Krychkine, A. Levine, V. Petrov, A. Ryabov, R. Ryutin, A. Sobol, V. Talov, L. Tourtchanovitch, S. Troshin, N. Tyurin, A. Uzunian, A. Volkov

University of Belgrade, Faculty of Physics and Vinca Institute of Nuclear Sciences, Belgrade, Serbia

P. Adzic³⁸, M. Djordjevic, M. Ekmedzic, D. Krpic³⁸, J. Milosevic, N. Smiljkovic, M. Zupan

Centro de Investigaciones Energéticas Medioambientales y Tecnológicas (CIEMAT), Madrid, Spain

M. Aguilar-Benitez, J. Alcaraz Maestre, P. Arce, C. Battilana, E. Calvo, M. Cerrada, M. Chamizo Llatas, N. Colino, B. De La Cruz, A. Delgado Peris, D. Domínguez Vázquez, C. Fernandez Bedoya, J.P. Fernández Ramos, A. Ferrando, J. Flix, M.C. Fouz, P. Garcia-Abia, O. Gonzalez Lopez, S. Goy Lopez, J.M. Hernandez, M.I. Josa, G. Merino, J. Puerta Pelayo, A. Quintario Olmeda, I. Redondo, L. Romero, J. Santaolalla, M.S. Soares, C. Willmott

Universidad Autónoma de Madrid, Madrid, Spain

C. Albajar, G. Codispoti, J.F. de Trocóniz

Universidad de Oviedo, Oviedo, Spain

H. Brun, J. Cuevas, J. Fernandez Menendez, S. Folgueras, I. Gonzalez Caballero, L. Lloret Iglesias, J. Piedra Gomez

Instituto de Física de Cantabria (IFCA), CSIC-Universidad de Cantabria, Santander, Spain

J.A. Brochero Cifuentes, I.J. Cabrillo, A. Calderon, S.H. Chuang, J. Duarte Campderros, M. Felcini³⁹, M. Fernandez, G. Gomez, J. Gonzalez Sanchez, A. Graziano, C. Jorda, A. Lopez Virto, J. Marco, R. Marco, C. Martinez Rivero, F. Matorras, F.J. Munoz Sanchez, T. Rodrigo, A.Y. Rodríguez-Marrero, A. Ruiz-Jimeno, L. Scodellaro, M. Sobron Sanudo, I. Vila, R. Vilar Cortabitarte

CERN, European Organization for Nuclear Research, Geneva, Switzerland

D. Abbaneo, P. Aspell, E. Auffray, G. Auzinger, M. Bachtis, J. Baechler, P. Baillon, A.H. Ball, D. Barney, J.F. Benitez, C. Bernet⁶, W. Bialas, G. Bianchi, P. Bloch, A. Bocci, A. Bonato, C. Botta, H. Breuker, D. Campi, T. Camporesi, E. Cano, G. Cerminara, A. Charkiewicz, T. Christiansen, J.A. Coarasa Perez, B. Curé, D. D'Enterria, A. Dabrowski, J. Daguin, A. De Roeck, S. Di Guida, M. Dobson, N. Dupont-Sagorin, A. Elliott-Peisert, M. Eppard, B. Frisch, W. Funk, A. Gaddi, M. Gastal, G. Georgiou, H. Gerwig, M. Giffels, D. Gigi, K. Gill, D. Giordano, M. Girone, M. Giunta, F. Glege, R. Gomez-Reino Garrido, R. Goudard, P. Govoni, S. Gowdy, R. Guida, J. Gutleber, R. Hammarstrom, J. Hammer, M. Hansen, P. Harris, C. Hartl, J. Harvey, B. Hegner, A. Hinzmann, A. Honma, V. Innocente, P. Janot, K. Kaadze, E. Karavakis, K. Kloukinas, K. Kousouris, P. Lecoq, Y.-J. Lee, P. Lenzi, R. Loos, C. Lourenço, A. Macpherson, N. Magini, T. Mäki, M. Malberti, L. Malgeri, M. Mannelli, A. Marchioro, J. Marques Pinho Noite, L. Masetti, F. Meijers, S. Mersi, E. Meschi, L. Moneta, M.U. Mozer, M. Mulders, P. Musella, A. Onnela, L. Orsini, J.A. Osborne, E. Palencia Cortezon, E. Perez, L. Perrozzi, P. Petagna, A. Petrilli, A. Petrucci, A. Pfeiffer, M. Pierini, M. Pimiä, D. Piparo, G. Polese, H. Postema, L. Quertenmont, A. Racz, W. Reece, D. Ricci, J. Rodrigues Antunes, G. Rolandi⁴⁰, C. Rovelli⁴¹, M. Rovere, V. Ryjov, H. Sakulin, D. Samyn, F. Santanastasio, C. Schäfer, C. Schwick, A. Sciaba, I. Segoni, S. Sekmen, A. Sharma, P. Siegrist, P. Silva, M. Simon, P. Sphicas⁴², D. Spiga, B.G. Taylor, O. Teller, P. Tropea, J. Troska, E. Tsesmelis, A. Tsirou, F. Vasey, L. Veillet, G.I. Veres²⁰, P. Vichoudis, J.R. Vlimant, P. Wertelaers, H.K. Wöhri, S.D. Worm⁴³, W.D. Zeuner

Paul Scherrer Institut, Villigen, Switzerland

W. Bertl, K. Deiters, W. Erdmann, D. Feichtinger, K. Gabathuler, R. Horisberger, Q. Ingram, H.C. Kaestli, S. König, D. Kotlinski, U. Langenegger, B. Meier, F. Meier, D. Renker, T. Rohe, T. Sakhelashvili⁴⁴

Institute for Particle Physics, ETH Zurich, Zurich, Switzerland

L. Bäni, F. Behner, B. Betev, B. Blau, P. Bortignon, M.A. Buchmann, B. Casal, N. Chanon, Z. Chen, D.R. Da Silva Di Calafiori, S. Dambach⁴⁵, G. Davatz, A. Deisher, G. Dissertori, M. Dittmar, L. Djambazov, M. Donegà, M. Dünser, C. Eggel⁴⁵, J. Eugster, G. Faber, K. Freudenreich, C. Grab, W. Hintz, D. Hits, H. Hofer, O. Holme, I. Horvath, P. Lecomte, W. Lustermann, C. Marchica⁴⁵, A.C. Marini, P. Martinez Ruiz del Arbol, N. Mohr, F. Moortgat, C. Nägeli⁴⁵, P. Nef, F. Nessi-Tedaldi, F. Pandolfi, L. Pape, F. Pauss, M. Peruzzi, T. Punz, F.J. Ronga, U. Röser, M. Rossini, L. Sala, A.K. Sanchez, M.-C. Sawley, D. Schinzel, A. Starodumov⁴⁶, B. Stieger, H. Suter, M. Takahashi, L. Tauscher⁷, A. Thea, K. Theofilatos, D. Treille, P. Trüb⁴⁵, S. Udriot, C. Urscheler, G. Viertel, H.P. von Gunten, R. Wallny, H.A. Weber, L. Wehrli, J. Weng, S. Zelepoukine⁴⁷

Universität Zürich, Zurich, Switzerland

C. Amsler⁴⁸, V. Chiochia, S. De Visscher, C. Favaro, M. Ivova Rikova, B. Kilminster, B. Millan Mejias, P. Otiougova, P. Robmann, H. Snoek, S. Tuppiti, M. Verzetti

National Central University, Chung-Li, Taiwan

Y.H. Chang, K.H. Chen, W.T. Chen, C. Ferro, A. Go, C.M. Kuo, S.W. Li, W. Lin, M.H. Liu, Z.K. Liu, Y.J. Lu, A.P. Singh, R. Volpe, J.H. Wu, S.S. Yu

National Taiwan University (NTU), Taipei, Taiwan

P. Bartalini, P. Chang, Y.H. Chang, Y.W. Chang, Y. Chao, K.F. Chen, C. Dietz, Z. Gao⁵, U. Grundler, W.-S. Hou, Y. Hsiung, K.Y. Kao, Y.J. Lei, J.J. Liau, S.W. Lin, R.-S. Lu, D. Majumder, E. Petrakou, X. Shi, J.G. Shiu, Y.M. Tzeng, K. Ueno, Y. Velikzhanin, X. Wan, C.C. Wang, M. Wang, J.T. Wei, P. Yeh

Chulalongkorn University, Bangkok, Thailand

B. Asavapibhop, N. Srimanobhas

Cukurova University, Adana, Turkey

A. Adiguzel, M.N. Bakirci⁴⁹, S. Cerci⁵⁰, C. Dozen, I. Dumanoglu, E. Eskut, S. Girgis, G. Gokbulut, E. Gurpinar, I. Hos, E.E. Kangal, T. Karaman, G. Karapinar⁵¹, A. Kayis Topaksu, G. Onengut, K. Ozdemir, S. Ozturk⁵², A. Polatoz, K. Sogut⁵³, D. Sunar Cerci⁵⁰, B. Tali⁵⁰, H. Topakli⁴⁹, L.N. Vergili, M. Vergili

Middle East Technical University, Physics Department, Ankara, Turkey

I.V. Akin, T. Aliev, B. Bilin, M. Deniz, H. Gamsizkan, A.M. Guler, K. Ocalan, A. Ozpineci, M. Serin, R. Sever, U.E. Surat, M. Zeyrek

Bogazici University, Istanbul, Turkey

M. Deliomeroğlu, E. Gülmez, B. Isildak⁵⁴, M. Kaya⁵⁵, O. Kaya⁵⁵, S. Ozkorucuklu⁵⁶, N. Sonmez⁵⁷

Istanbul Technical University, Istanbul, Turkey

K. Cankocak

Institute of Single Crystals of National Academy of Science, Kharkov, Ukraine

B. Grynyov

National Scientific Center, Kharkov Institute of Physics and Technology, Kharkov, Ukraine

L. Levchuk, S. Lukyanenko, D. Soroka, P. Sorokin

Centre for Complex Cooperative Systems, University of the West of England, Bristol, United Kingdom

M.K.H. Ahmad, A. Branson, R. McClatchey, M. Odeh, J. Shamdasani, K. Soomro

University of Bristol, Bristol, United Kingdom

T. Barrass, F. Bostock, J.J. Brooke, E. Clement, D. Cussans, H. Flacher, R. Frazier, J. Goldstein, M. Grimes, G.P. Heath, H.F. Heath, L. Kreczko, W. Laceso, S. Metson, D.M. Newbold⁴³, K. Nirunpong, A. Poll, S. Senkin, V.J. Smith, T. Williams

Rutherford Appleton Laboratory, Didcot, United Kingdom

L. Basso⁵⁸, E. Bateman, K.W. Bell, A. Belyaev⁵⁸, C. Brew, R.M. Brown, B. Camanzi, D.J.A. Cockerill, J.F. Connolly[†], J.A. Coughlan, L.G. Denton, P.S. Flower, M.J. French, R.J.S. Greenhalgh, R.N.J. Halsall, K. Harder, S. Harper, J.A. Hill, J. Jackson, B.W. Kennedy, A.L. Lintern, A.B. Lodge, E. Olaiya, M.R. Pearson, D. Petyt, B.C. Radburn-Smith, C.H. Shepherd-Themistocleous, B.J. Smith, M. Sproston, R. Stephenson, I.R. Tomalin, M.J. Torbet, J.H. Williams[†], W.J. Womersley

Imperial College, London, United Kingdom

R. Bainbridge, G. Ball, J. Ballin, D. Bauer, R. Beuselinck, O. Buchmuller, D. Colling, N. Cripps, M. Cutajar, P. Dauncey, G. Davies, M. Della Negra, W. Ferguson, J. Fulcher, D. Futyan, A. Gilbert, A. Guneratne Bryer, G. Hall, Z. Hatherell, J. Hays, G. Iles, M. Jarvis, J. Jones, G. Karapostoli, M. Kenzie, J. Leaver, L. Lyons, A.-M. Magnan, J. Marrouche, B. Mathias, D.G. Miller, R. Nandi, J. Nash, A. Nikitenko⁴⁶, M. Noy, A. Papageorgiou, J. Pela, M. Pesaresi, K. Petridis, M. Pioppi⁵⁹, D. Rand, D.M. Raymond, S. Rogerson, A. Rose, M.J. Ryan, C. Seez, P. Sharp[†], A. Sparrow, M. Stoye, A. Tapper, C. Timlin, S. Tourneur, M. Vazquez Acosta, T. Virdee, S. Wakefield, N. Wardle, T. Whyntie, M. Wingham, O. Zorba

Brunel University, Uxbridge, United Kingdom

M. Chadwick, J.E. Cole, P.R. Hobson, A. Khan, P. Kyberd, D. Leggat, D. Leslie, W. Martin, I.D. Reid, P. Symonds, L. Teodorescu, M. Turner

Baylor University, Waco, USA

J. Dittmann, K. Hatakeyama, H. Liu, T. Scarborough

The University of Alabama, Tuscaloosa, USA

O. Charaf, C. Henderson, P. Rumerio

Boston University, Boston, USA

A. Avetisyan, T. Bose, E. Carrera Jarrin, C. Fantasia, E. Hazen, A. Heister, J. St. John, P. Lawson, D. Lazic, J. Rohlfs, D. Sperka, L. Sulak, F. Varela Rodriguez, S. Wu

Brown University, Providence, USA

J. Alimena, S. Bhattacharya, D. Cutts, Z. Demiragli, A. Ferapontov, A. Garabedian, U. Heintz, R. Hooper, S. Jabeen, G. Kukartsev, E. Laird, G. Landsberg, M. Luk, M. Narain, D. Nguyen, M. Segala, T. Sinthuprasith, T. Speer, K.V. Tsang, Z. Unalan

University of California, Davis, Davis, USA

R. Breedon, G. Breto, M. Calderon De La Barca Sanchez, M. Case, S. Chauhan, M. Chertok, J. Conway, R. Conway, P.T. Cox, J. Dolen, R. Erbacher, M. Gardner, G. Grim, J. Gunion, B. Holbrook, W. Ko, A. Kopecky, R. Lander, F.C. Lin, T. Miceli, P. Murray, M. Nikolic, D. Pellett, F. Ricci-Tam, J. Rowe, B. Rutherford, M. Searle, J. Smith, M. Squires, M. Tripathi, R. Vasquez Sierra, R. Yohay

University of California, Los Angeles, Los Angeles, USA

V. Andreev, K. Arisaka, D. Cline, R. Cousins, J. Duris, S. Erhan, P. Everaerts, C. Farrell, J. Hauser, M. Ignatenko, C. Jarvis, J. Kubic, S. Otwinowski, C. Plager, G. Rakness, P. Schlein[†], P. Traczyk, V. Valuev, M. Weber, X. Yang, Y. Zheng

University of California, Riverside, Riverside, USA

J. Babb, R. Clare, M.E. Dinardo, J. Ellison, J.W. Gary, F. Giordano, G. Hanson, G.Y. Jeng⁶⁰, J.G. Layter, H. Liu, O.R. Long, A. Luthra, H. Nguyen, S. Paramesvaran, B.C. Shen[†], J. Sturdy, S. Sumowidagdo, R. Wilken, S. Wimpenny

University of California, San Diego, La Jolla, USA

W. Andrews, J.G. Branson, G.B. Cerati, M. Cinquilli, S. Cittolin, D. Evans, A. Holzner, R. Kelley, M. Lebourgeois, J. Letts, I. Macneill, B. Mangano, T. Martin, A. Mrak-Tadel, S. Padhi, C. Palmer, G. Petrucciani, M. Pieri, M. Sani, I. Sfiligoi, V. Sharma, S. Simon, E. Sudano, M. Tadel, Y. Tu, A. Vartak, S. Wasserbaech⁶¹, F. Würthwein, A. Yagil, J. Yoo

University of California, Santa Barbara, Santa Barbara, USA

D. Barge, R. Bellan, C. Campagnari, M. D'Alfonso, T. Danielson, K. Flowers, P. Geffert, F. Golf, J. Incandela, C. Justus, P. Kalavase, D. Kovalskyi, V. Krutelyov, S. Kyre, S. Lowette, G. Magazzu, R. Magaña Villalba, N. Mccoll, V. Pavlunin, J. Ribnik, J. Richman, R. Rossin, D. Stuart, W. To, C. West, D. White

California Institute of Technology, Pasadena, USA

D. Adamczyk, A. Apresyan, A. Barczyk, A. Bornheim, J. Bunn, Y. Chen, G. Denis, E. Di Marco, J. Duarte, P. Galvez, M. Gataullin, D. Kcira, M. Lebeau, I. Legrand, V. Litvine, Y. Ma, Z. Maxa, A. Mott, A. Mughal, D. Nae, H.B. Newman, S. Ravot, C. Rogan, S.G. Rozsa, S. Shevchenko, K. Shin, M. Spiropulu, C. Steenberg, M. Thomas, V. Timciuc, F. van Lingen, J. Veverka, B.R. Voicu, R. Wilkinson, S. Xie, Y. Yang, L. Zhang, K. Zhu, R.Y. Zhu

Carnegie Mellon University, Pittsburgh, USA

V. Azzolini, A. Calamba, R. Carroll, T. Ferguson, Y. Iiyama, D.W. Jang, S.Y. Jun, Y.F. Liu, M. Paulini, J. Russ, N. Terentyev, H. Vogel, I. Vorobiev

University of Colorado at Boulder, Boulder, USA

J.P. Cumalat, B.R. Drell, W.T. Ford, A. Gaz, B. Heyburn, D. Johnson, E. Luiggi Lopez, U. Nauenberg, J.G. Smith, K. Stenson, K.A. Ulmer, S.R. Wagner, S.L. Zang

Cornell University, Ithaca, USA

L. Agostino, J. Alexander, A. Chatterjee, N. Eggert, L.K. Gibbons, B. Heltsley, A. Khukhunaishvili, B. Kreis, V. Kuznetsov, N. Mirman, G. Nicolas Kaufman, J.R. Patterson, D. Riley, A. Ryd, E. Salvati, S. Stroiney, W. Sun, W.D. Teo, J. Thom, J. Thompson, J. Tucker, J. Vaughan, Y. Weng, L. Winstrom, P. Wittich

Fairfield University, Fairfield, USA

D. Winn

Fermi National Accelerator Laboratory, Batavia, USA

S. Abdullin, M. Albert, M. Albrow, J. Anderson, G. Apollinari, M. Atac[†], W. Badgett, D. Bailleux, J.A. Bakken, B. Baldin, K. Banicz, L.A.T. Bauerdick, A. Beretvas, J. Berryhill, P.C. Bhat, M. Binkley[†], F. Borcharding, K. Burkett, J.N. Butler, V. Chetluru, H.W.K. Cheung, F. Chlebana, S. Cihangir, W. Dagenhart, G. Derylo, C. Dumitrescu, D. Dykstra, D.P. Eartly, J.E. Elias[†], V.D. Elvira, G. Eulisse, D. Evans, D. Fagan, I. Fisk, S. Foulkes, J. Freeman, I. Gaines, Y. Gao, P. Gartung, L. Giacchetti, E. Gottschalk, D. Green, Y. Guo, O. Gutsche, A. Hahn, J. Hanlon, R.M. Harris, J. Hirschauer, B. Holzman, B. Hooberman, J. Howell, C.h. Huang, D. Hufnagel, S. Jindariani, M. Johnson, C.D. Jones, U. Joshi, E. Juska, B. Klima, S. Kunori, S. Kwan, K. Larson, C. Leonidopoulos⁶², J. Linacre, D. Lincoln, R. Lipton, J.A. Lopez Perez, S. Los, J. Lykken, K. Maeshima, J.M. Marraffino, S. Maruyama, D. Mason, P. McBride, T. McCauley, K. Mishra, S. Moccia, R.K. Mommsen, S. Mrenna, S.J. Murray, Y. Musienko⁶³, S. Muzaffar, C. Newman-Holmes, V. O'Dell, I. Osborne, J. Pivarski, S. Popescu²⁸, R. Pordes, O. Prokofyev, V. Rapsevicius, A. Ronzhin, P. Rossman, S. Ryu, E. Sexton-Kennedy, S. Sharma, T.M. Shaw, R.P. Smith[†], A. Soha, W.J. Spalding, L. Spiegel, W. Tanenbaum, L. Taylor, R. Thompson, A. Tiradani, S. Tkaczyk, N.V. Tran, L. Tuura, L. Uplegger, E.W. Vaandering, R. Vidal, J. Whitmore, W. Wu, F. Yang, J. Yarba, J.C. Yun, T. Zimmerman

University of Florida, Gainesville, USA

D. Acosta, P. Avery, V. Barashko, D. Bourilkov, M. Chen, T. Cheng, S. Das, M. De Gruttola, G.P. Di Giovanni, D. Dobur, S. Dolinsky, A. Drozdetskiy, R.D. Field, M. Fisher, Y. Fu, I.K. Furic, J. Gartner, L. Gorn, D. Holmes, J. Hugon, B. Kim, J. Konigsberg, A. Korytov, A. Kropivnitskaya, T. Kypreos, J.F. Low, A. Madorsky, K. Matchev, P. Milenovic⁶⁴, G. Mitselmakher, L. Muniz, M. Park, R. Remington, A. Rinkevicius, B. Scurlock, N. Skhirtladze, M. Snowball, J. Stasko, J. Yelton, M. Zakaria

Florida International University, Miami, USA

V. Gaultney, S. Hewamanage, L.M. Lebolo, S. Linn, P. Markowitz, G. Martinez, J.L. Rodriguez

Florida State University, Tallahassee, USA

T. Adams, A. Askew, M. Bertoldi, J. Bochenek, J. Chen, W.G.D. Dharmaratna, B. Diamond, S.V. Gleyzer, J. Haas, S. Hagopian, V. Hagopian, M. Jenkins, K.F. Johnson, H. Prosper, S. Tentindo, V. Veeraraghavan, M. Weinberg

Florida Institute of Technology, Melbourne, USA

M.M. Baarmand, B. Dorney, M. Hohlmann, H. Kalakhety, R. Ralich, I. Vodopiyanov, F. Yumiceva

University of Illinois at Chicago (UIC), Chicago, USA

M.R. Adams, I.M. Anghel, L. Apanasevich, Y. Bai, V.E. Bazterra, R.R. Betts, I. Bucinskaite, J. Callner, R. Cavanaugh, M.H. Chung, O. Evdokimov, E.J. Garcia-Solis, L. Gauthier, C.E. Gerber, D.J. Hofman, R. Hollis, A. Iordanova, S. Khalatyan, G.J. Kunde⁶⁵, F. Lacroix, C. O'Brien, C. Silkworth, C. Silvestre, A. Smoron, D. Strom, P. Turner, N. Varelas

The University of Iowa, Iowa City, USA

U. Akgun, E.A. Albayrak, A.S. Ayan, B. Bilki⁶⁶, W. Clarida, P. Debbins, F. Duru, F.D. Ingram, E. McCliment, J.-P. Merlo, H. Mermerkaya⁶⁷, A. Mestvirishvili, M.J. Miller, A. Moeller, J. Nachtman, C.R. Newsom, E. Norbeck, J. Olson, Y. Onel, F. Ozok⁶⁸, I. Schmidt, S. Sen, P. Tan, E. Tiras, J. Wetzel, T. Yetkin, K. Yi

Johns Hopkins University, Baltimore, USA

B.A. Barnett, B. Blumenfeld, S. Bolognesi, D. Fehling, G. Giurgiu, A.V. Gritsan, Z.J. Guo, G. Hu, P. Maksimovic, M. Swartz, A. Whitbeck

The University of Kansas, Lawrence, USA

P. Baringer, A. Bean, G. Benelli, D. Coppage, O. Grachov, R.P. Kenny III, M. Murray, D. Noonan, V. Radicci, S. Sanders, R. Stringer, G. Tinti, J.S. Wood

Kansas State University, Manhattan, USA

A.F. Barfuss, T. Bolton, I. Chakaberia, A. Ivanov, S. Khalil, M. Makouski, Y. Maravin, S. Shrestha, I. Svintradze

Lawrence Livermore National Laboratory, Livermore, USA

J. Gronberg, D. Lange, F. Rebassoo, D. Wright

University of Maryland, College Park, USA

A. Baden, R. Bard, M. Boutemur, B. Calvert, S.C. Eno, J.A. Gomez, T. Grassi, N.J. Hadley, R.G. Kellogg, M. Kirn, T. Kolberg, Y. Lu, M. Marionneau, A.C. Mignerey, K. Pedro, A. Peterman, K. Rossato, A. Skuja, J. Temple, M.B. Tonjes, S.C. Tonwar, T. Toole, E. Twedt

Massachusetts Institute of Technology, Cambridge, USA

A. Apyan, G. Bauer, J. Bendavid, W. Busza, E. Butz, I.A. Cali, M. Chan, V. Dutta, G. Gomez Ceballos, M. Goncharov, Y. Kim, M. Klute, K. Krajczar⁶⁹, A. Levin, P.D. Luckey, T. Ma, S. Nahn, C. Paus, D. Ralph, C. Roland, G. Roland, M. Rudolph, G.S.F. Stephans, F. Stöckli, K. Sumorok, K. Sung, D. Velicanu, E.A. Wenger, R. Wolf, B. Wyslouch, M. Yang, Y. Yilmaz, A.S. Yoon, M. Zanetti, V. Zhukova

University of Minnesota, Minneapolis, USA

S.I. Cooper, P. Cushman, B. Dahmes, A. De Benedetti, R. Egeland, G. Franzoni, A. Gude, J. Haupt, A. Inyakin, S.C. Kao, K. Klapoetke, Y. Kubota, J. Mans, N. Pastika, R. Rusack, A. Singovsky, N. Tambe, J. Turkewitz

University of Mississippi, Oxford, USA

L.M. Cremaldi, R. Kroeger, L. Perera, R. Rahmat, J. Reidy, D.A. Sanders, D. Summers

University of Nebraska-Lincoln, Lincoln, USA

G. Attebury, E. Avdeeva, K. Bloom, B. Bockelman, S. Bose, D.R. Claes, A. Dominguez, M. Eads, J. Keller, I. Kravchenko, J. Lazo-Flores, C. Lundstedt, S. Malik, R. Snihur, G.R. Snow, D. Swanson

State University of New York at Buffalo, Buffalo, USA

U. Baur, A. Godshalk, I. Iashvili, S. Jain, A. Kharchilava, A. Kumar, S. Rappoccio, S.P. Shipkowski, K. Smith

Northeastern University, Boston, USA

G. Alverson, E. Barberis, D. Baumgartel, M. Chasco, J. Haley, J. Moromisato, D. Nash, T. Orimoto, J. Swain, D. Trocino, E. Von Goeler, D. Wood, J. Zhang

Northwestern University, Evanston, USA

A. Anastassov, B. Gobbi, K.A. Hahn, A. Kubik, L. Lusito, N. Odell, R.A. Ofierzynski, B. Pollack, A. Pozdnyakov, M. Schmitt, S. Stoynev, M. Velasco, S. Won

University of Notre Dame, Notre Dame, USA

L. Antonelli, B. Baumbaugh, D. Berry, A. Brinkerhoff, K.M. Chan, A.H. Heering, M. Hildreth, C. Jessop, D.J. Karmgard, N. Kellams, J. Kolb, K. Lannon, W. Luo, S. Lynch, N. Marinelli, D.M. Morse, T. Pearson, M. Planer, R. Ruchti, J. Slaunwhite, N. Valls, M. Wayne, M. Wolf, A. Woodard

The Ohio State University, Columbus, USA

B. Bylsma, L.S. Durkin, C. Hill, R. Hughes, K. Kotov, T.Y. Ling, D. Puigh, M. Rodenburg, C.J. Rush, V. Sehgal, C. Vuosalo, G. Williams, B.L. Winer

Princeton University, Princeton, USA

N. Adam, E. Berry, P. Elmer, D. Gerbaudo, V. Halyo, P. Hebda, J. Hegeman, A. Hunt, P. Jindal, S.A. Koay, D. Lopes Pegna, P. Lujan, D. Marlow, T. Medvedeva, M. Mooney, J. Olsen, P. Piroué, X. Quan, A. Raval, H. Saka, D. Stickland, C. Tully, J.S. Werner, T. Wildish, Z. Xie, S.C. Zenz, A. Zuranski

University of Puerto Rico, Mayaguez, USA

J.G. Acosta, M. Bonnett Del Alamo, E. Brownson, X.T. Huang, A. Lopez, H. Mendez, S. Oliveros, J.E. Ramirez Vargas, A. Zatserklyaniy

Purdue University, West Lafayette, USA

E. Alagoz, K. Arndt, V.E. Barnes, D. Benedetti, G. Bolla, D. Bortoletto, A. Bujak, M. De Mattia, A. Everett, L. Gutay, Z. Hu, M. Jones, O. Koybasi, M. Kress, A.T. Laasanen, J. Lee, N. Leonardo, C. Liu, V. Maroussov, P. Merkel, D.H. Miller, J. Miyamoto, N. Neumeister, C. Rott, A. Roy, I. Shipsey, D. Silvers, A. Svyatkovskiy, M. Vidal Marono, H.D. Yoo, J. Zablocki, Y. Zheng

Purdue University Calumet, Hammond, USA

S. Guragain, N. Parashar

Rice University, Houston, USA

A. Adair, B. Akgun, C. Boulahouache, V. Cuplov, K.M. Ecklund, F.J.M. Geurts, S.J. Lee, W. Li, J.H. Liu, M. Matveev, B.P. Padley, R. Redjimi, J. Roberts, A. Tumanov, P. Yepes, J. Zabel

University of Rochester, Rochester, USA

B. Betchart, A. Bodek, H. Budd, Y.S. Chung, R. Covarelli, P. de Barbaro, R. Demina, Y. Eshaq, T. Ferbel, A. Garcia-Bellido, G. Ginther, P. Goldenzweig, Y. Gotra, J. Han, A. Harel, S. Korjenevski, D.C. Miner, D. Orbaker, W. Sakumoto, P. Slattery, D. Vishnevskiy, M. Zielinski

The Rockefeller University, New York, USA

A. Bhatti, R. Ciesielski, L. Demortier, K. Goulianos, G. Lungu, S. Malik, C. Mesropian

Rutgers, the State University of New Jersey, Piscataway, USA

S. Arora, A. Barker, J.P. Chou, C. Contreras-Campana, E. Contreras-Campana, D. Duggan, D. Ferencek, Y. Gershtein, R. Gray, E. Halkiadakis, D. Hidas, A. Lath, S. Panwalkar, M. Park, R. Patel, V. Rekovic, J. Robles, K. Rose, S. Salur, S. Schnetzer, C. Seitz, S. Somalwar, R. Stone, S. Thomas

University of Tennessee, Knoxville, USA

G. Cerizza, M. Hollingsworth, G. Ragghianti, S. Spanier, Z.C. Yang, A. York

Texas A&M University, College Station, USA

O. Bouhali⁷⁰, R. Eusebi, W. Flanagan, J. Gilmore, T. Kamon⁷¹, V. Khotilovich, R. Montalvo, C.N. Nguyen, I. Osipenkov, Y. Pakhotin, A. Perloff, J. Roe, A. Safonov, T. Sakuma, S. Sengupta, I. Suarez, A. Tatarinov, D. Toback

Texas Tech University, Lubbock, USA

N. Akchurin, J. Damgov, C. Dragoiu, P.R. Duderu, C. Jeong, K. Kovitangoon, S.W. Lee, T. Libeiro, A. Sill, I. Volobouev, R. Wigmans

Vanderbilt University, Nashville, USA

E. Appelt, A.G. Delannoy, D. Engh, C. Florez, W. Gabella, S. Greene, A. Gurrola, W. Johns, P. Kurt, C. Maguire, A. Melo, M. Sharma, P. Sheldon, B. Snook, S. Tuo, J. Velkovska

University of Virginia, Charlottesville, USA

D. Andelin, M.W. Arenton, M. Balazs, S. Boutle, S. Conetti, B. Cox, B. Francis, J. Goodell, R. Hirosky, A. Ledovskoy, C. Lin, C. Neu, D. Phillips II, J. Wood

Wayne State University, Detroit, USA

S. Gollapinni, R. Harr, P.E. Karchin, C. Kottachchi Kankanamge Don, P. Lamichhane, M. Mattson, C. Milstène, A. Sakharov

University of Wisconsin, Madison, USA

M. Anderson, D. Belknap, J.N. Bellinger, L. Borrello, D. Bradley, D. Carlsmith, M. Cepeda, I. Crotty⁵, S. Dasu, F. Feyzi, E. Friis, T. Gorski, L. Gray, K.S. Grogg, M. Grothe, R. Hall-Wilton, M. Herndon, A. Hervé, P. Klabbers, J. Klukas, J. Lackey, A. Lanaro, C. Lazaridis, R. Loveless, S. Lusin⁵, M. Magrans de Abril, W. Maier, A. Mohapatra, I. Ojalvo, F. Palmonari, G.A. Pierro, D. Reeder, I. Ross, A. Savin, W.H. Smith, J. Swanson, D. Wenman

† Deceased

1: Also at Vienna University of Technology, Vienna, Austria

2: Also at National Institute of Chemical Physics and Biophysics, Tallinn, Estonia

3: Also at Universidade Federal do ABC, Santo Andre, Brazil

4: Also at California Institute of Technology, Pasadena, USA

5: Also at CERN, European Organization for Nuclear Research, Geneva, Switzerland

6: Also at Laboratoire Leprince-Ringuet, Ecole Polytechnique, IN2P3-CNRS, Palaiseau, France

7: Also at Suez Canal University, Suez, Egypt

8: Also at Zewail City of Science and Technology, Zewail, Egypt

9: Also at Cairo University, Cairo, Egypt

10: Also at Fayoum University, El-Fayoum, Egypt

11: Also at British University, Cairo, Egypt

12: Now at Ain Shams University, Cairo, Egypt

13: Also at National Centre for Nuclear Research, Swierk, Poland

14: Also at Université de Haute-Alsace, Mulhouse, France

- 15: Also at Joint Institute for Nuclear Research, Dubna, Russia
- 16: Also at Moscow State University, Moscow, Russia
- 17: Also at Brandenburg University of Technology, Cottbus, Germany
- 18: Also at The University of Kansas, Lawrence, USA
- 19: Also at Institute of Nuclear Research ATOMKI, Debrecen, Hungary
- 20: Also at Eötvös Loránd University, Budapest, Hungary
- 21: Also at Tata Institute of Fundamental Research - HECR, Mumbai, India
- 22: Now at King Abdulaziz University, Jeddah, Saudi Arabia
- 23: Also at University of Visva-Bharati, Santiniketan, India
- 24: Also at Sharif University of Technology, Tehran, Iran
- 25: Also at Isfahan University of Technology, Isfahan, Iran
- 26: Also at Shiraz University, Shiraz, Iran
- 27: Also at Plasma Physics Research Center, Science and Research Branch, Islamic Azad University, Tehran, Iran
- 28: Also at Horia Hulubei National Institute of Physics and Nuclear Engineering (IFIN-HH), Bucharest, Romania
- 29: Also at Facoltà Ingegneria Università di Roma, Roma, Italy
- 30: Also at Università della Basilicata, Potenza, Italy
- 31: Also at Università degli Studi Guglielmo Marconi, Roma, Italy
- 32: Also at Laboratori Nazionali di Legnaro dell' INFN, Legnaro, Italy
- 33: Also at Università degli Studi di Siena, Siena, Italy
- 34: Also at University of Bucharest, Faculty of Physics, Bucuresti-Magurele, Romania
- 35: Also at ENEA - Casaccia Research Center, S. Maria di Galeria, Italy
- 36: Also at Warsaw University of Technology, Institute of Electronic Systems, Warsaw, Poland
- 37: Also at INFN Sezione di Padova; Università di Padova; Università di Trento (Trento), Padova, Italy
- 38: Also at Faculty of Physics of University of Belgrade, Belgrade, Serbia
- 39: Also at University of California, Los Angeles, Los Angeles, USA
- 40: Also at Scuola Normale e Sezione dell' INFN, Pisa, Italy
- 41: Also at INFN Sezione di Roma, Roma, Italy
- 42: Also at University of Athens, Athens, Greece
- 43: Also at Rutherford Appleton Laboratory, Didcot, United Kingdom
- 44: Also at Institute of High Energy Physics and Informatization, Tbilisi State University, Tbilisi, Georgia
- 45: Also at Paul Scherrer Institut, Villigen, Switzerland
- 46: Also at Institute for Theoretical and Experimental Physics, Moscow, Russia
- 47: Also at University of Wisconsin, Madison, USA
- 48: Also at Albert Einstein Center for Fundamental Physics, BERN, Switzerland
- 49: Also at Gaziosmanpasa University, Tokat, Turkey
- 50: Also at Adiyaman University, Adiyaman, Turkey
- 51: Also at Izmir Institute of Technology, Izmir, Turkey
- 52: Also at The University of Iowa, Iowa City, USA
- 53: Also at Mersin University, Mersin, Turkey
- 54: Also at Ozyegin University, Istanbul, Turkey
- 55: Also at Kafkas University, Kars, Turkey
- 56: Also at Suleyman Demirel University, Isparta, Turkey
- 57: Also at Ege University, Izmir, Turkey
- 58: Also at School of Physics and Astronomy, University of Southampton, Southampton, United Kingdom
- 59: Also at INFN Sezione di Perugia; Università di Perugia, Perugia, Italy
- 60: Also at University of Sydney, Sydney, Australia
- 61: Also at Utah Valley University, Orem, USA
- 62: Now at University of Edinburgh, Scotland, Edinburgh, United Kingdom
- 63: Also at Institute for Nuclear Research, Moscow, Russia
- 64: Also at University of Belgrade, Faculty of Physics and Vinca Institute of Nuclear Sciences, Belgrade, Serbia

65: Also at Los Alamos National Laboratory, Los Alamos, USA

66: Also at Argonne National Laboratory, Argonne, USA

67: Also at Erzincan University, Erzincan, Turkey

68: Also at Mimar Sinan University, Istanbul, Istanbul, Turkey

69: Also at KFKI Research Institute for Particle and Nuclear Physics, Budapest, Hungary

70: Also at Texas A&M University at Qatar, DOHA, QATAR

71: Also at Kyungpook National University, Daegu, Korea