

Erratum to: Production of π^0 and η mesons up to high transverse momentum in pp collisions at 2.76 TeV

ALICE Collaboration*

CERN, 1211 Geneva 23, Switzerland

Published online: 6 September 2017

© CERN for the benefit of the ALICE collaboration 2017. This article is an open access publication

Erratum to: Eur. Phys. J. C (2017) 77:339
DOI 10.1140/epjc/s10052-017-4890-x

In the original version of this article unfortunately the copyright holder in the PDF was wrong. The original article has been corrected.

Open Access This article is distributed under the terms of the Creative Commons Attribution 4.0 International License (<http://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license, and indicate if changes were made. Funded by SCOAP³.

The online version of the original article can be found under doi:10.1140/epjc/s10052-017-4890-x.

* e-mail: alice-publications@cern.ch

ALICE Collaboration

S. Acharya¹³⁹, D. Adamová⁸⁷, M. M. Aggarwal⁹¹, G. Aglieri Rinella³⁴, M. Agnello³⁰, N. Agrawal⁴⁷, Z. Ahammed¹³⁹, N. Ahmad¹⁷, S. U. Ahn⁶⁹, S. Aiola¹⁴³, A. Akhmedov⁵⁴, S. N. Alam¹³⁹, D. S. D. Albuquerque¹²⁴, D. Aleksandrov⁸³, B. Alessandro¹¹³, D. Alexandre¹⁰⁴, R. Alfaro Molina⁶⁴, A. Alici^{12,26,107}, A. Alkin³, J. Alme²¹, T. Alt⁶⁰, I. Altsybeev¹³⁸, C. Alves Garcia Prado¹²³, M. An⁷, C. Andrei⁸⁰, H. A. Andrews¹⁰⁴, A. Andronic¹⁰⁰, V. Anguelov⁹⁶, C. Anson⁹⁰, T. Antičić¹⁰¹, F. Antinori¹¹⁰, P. Antonioli¹⁰⁷, R. Anwar¹²⁶, L. Aphecetche¹¹⁶, H. Appelshäuser⁶⁰, S. Arcelli²⁶, R. Arnaldi¹¹³, O. W. Arnold^{35,97}, I. C. Arsene²⁰, M. Arslanovic⁶⁰, B. Audurier¹¹⁶, A. Augustinus³⁴, R. Averbeck¹⁰⁰, T. Awes⁸⁸, M. D. Azmi¹⁷, A. Badalá¹⁰⁹, Y. W. Baek⁶⁸, S. Bagnasco¹¹³, R. Bailhache⁶⁰, R. Bala⁹³, A. Baldisseri⁶⁵, M. Ball⁴⁴, R. C. Baral⁵⁷, A. M. Barbano²⁵, R. Barbera²⁷, F. Barile^{32,106}, L. Barioglio²⁵, G. G. Barnaföldi¹⁴², L. S. Barnby^{34,104}, V. Barret⁷¹, P. Bartalini⁷, K. Barth³⁴, J. Bartke^{120,a}, E. Bartsch⁶⁰, M. Basile²⁶, N. Bastid⁷¹, S. Basu¹³⁹, B. Bathen⁶¹, G. Batigne¹¹⁶, A. Batista Camejo⁷¹, B. Batyunya⁶⁷, P. C. Batzing²⁰, I. G. Bearden⁸⁴, H. Beck⁹⁶, C. Bedda³⁰, N. K. Behera⁵⁰, I. Belikov¹³⁵, F. Bellini²⁶, H. Bello Martinez², R. Bellwied¹²⁶, L. G. E. Beltran¹²², V. Belyaev⁷⁶, G. Bencedi¹⁴², S. Beole²⁵, A. Bercuci⁸⁰, Y. Berdnikov⁸⁹, D. Berenyi¹⁴², R. A. Bertens^{53,129}, D. Berzano³⁴, L. Betev³⁴, A. Bhasin⁹³, I. R. Bhat⁹³, A. K. Bhati⁹¹, B. Bhattacharjee⁴³, J. Bhom¹²⁰, L. Bianchi¹²⁶, N. Bianchi⁷³, C. Bianchin¹⁴¹, J. Bielčík³⁸, J. Bielčíková⁸⁷, A. Bilandzic^{35,97}, G. Biro¹⁴², R. Biswas⁴, S. Biswas⁴, J. T. Blair¹²¹, D. Blau⁸³, C. Blume⁶⁰, G. Boca¹³⁶, F. Bock^{75,96}, A. Bogdanov⁷⁶, L. Boldizsár¹⁴², M. Bombara³⁹, G. Bonomi¹³⁷, M. Bonora³⁴, J. Book⁶⁰, H. Borel⁶⁵, A. Borissov⁹⁹, M. Borri¹²⁸, E. Botta²⁵, C. Bourjau⁸⁴, P. Braun-Munzinger¹⁰⁰, M. Bregant¹²³, T. A. Broker⁶⁰, T. A. Browning⁹⁸, M. Broz³⁸, E. J. Brucken⁴⁵, E. Bruna¹¹³, G. E. Bruno³², D. Budnikov¹⁰², H. Buesching⁶⁰, S. Bufalino³⁰, P. Buhler¹¹⁵, S. A. I. Buitron⁶², P. Buncic³⁴, O. Busch¹³², Z. Buthelezi⁶⁶, J. B. Butt¹⁵, J. T. Buxton¹⁸, J. Cabala¹¹⁸, D. Caffarri³⁴, H. Caines¹⁴³, A. Caliva⁵³, E. Calvo Villar¹⁰⁵, P. Camerini²⁴, A. A. Capon¹¹⁵, F. Carena³⁴, W. Carena³⁴, F. Carnesecchi^{12,26}, J. Castillo Castellanos⁶⁵, A. J. Castro¹²⁹, E. A. R. Casula^{23,108}, C. Ceballos Sanchez⁹, P. Cerello¹¹³, B. Chang¹²⁷, S. Chapeland³⁴, M. Chartier¹²⁸, J. L. Charvet⁶⁵, S. Chattopadhyay¹³⁹, S. Chattopadhyay¹⁰³, A. Chauvin^{35,97}, M. Cherney⁹⁰, C. Cheshkov¹³⁴, B. Cheynis¹³⁴, V. Chibante Barroso³⁴, D. D. Chinellato¹²⁴, S. Cho⁵⁰, P. Chochula³⁴, K. Choi⁹⁹, M. Chojnacki⁸⁴, S. Choudhury¹³⁹, P. Christakoglou⁸⁵, C. H. Christensen⁸⁴, P. Christiansen³³, T. Chujo¹³², S. U. Chung⁹⁹, C. Cicalo¹⁰⁸, L. Cifarelli^{12,26}, F. Cindolo¹⁰⁷, J. Cleymans⁹², F. Colamaria³², D. Colella^{34,55}, A. Collu⁷⁵, M. Colocci²⁶, M. Concas^{113,b}, G. Conesa Balbastre⁷², Z. Conesa del Valle⁵¹, M. E. Connors^{143,c}, J. G. Contreras³⁸, T. M. Cormier⁸⁸, Y. Corrales Morales¹¹³, I. Cortés Maldonado², P. Cortese³¹, M. R. Cosentino¹²⁵, F. Costa³⁴, S. Costanza¹³⁶, J. Crkovská⁵¹, P. Crochet⁷¹, E. Cuautle⁶², L. Cunqueiro⁶¹, T. Dahms^{35,97}, A. Dainese¹¹⁰, M. C. Danisch⁹⁶, A. Danu⁵⁸, D. Das¹⁰³, I. Das¹⁰³, S. Das⁴, A. Dash⁸¹, S. Dash⁴⁷, S. De^{48,123}, A. De Caro²⁹, G. de Cataldo¹⁰⁶, C. de Conti¹²³, J. de Cuveland⁴¹, A. De Falco²³, D. De Gruttola^{12,29}, N. De Marco¹¹³, S. De Pasquale²⁹, R. D. De Souza¹²⁴, H. F. Degenhardt¹²³, A. Deisting^{96,100}, A. Deloff⁷⁹, C. Deplano⁸⁵, P. Dhankher⁴⁷, D. Di Bari³², A. Di Mauro³⁴, P. Di Nezza⁷³, B. Di Ruzza¹¹⁰, M. A. Diaz Corchero¹⁰, T. Dietel⁹², P. Dillenseger⁶⁰, R. Divia³⁴, Ø. Djuvslund²¹, A. Dobrin^{34,58}, D. Domenicis Gimenez¹²³, B. Dönigus⁶⁰, O. Dordic²⁰, T. Drozhzhova⁶⁰, A. K. Dubey¹³⁹, A. Dubla¹⁰⁰, L. Ducroux¹³⁴, A. K. Duggal⁹¹, P. Dupieux⁷¹, R. J. Ehlers¹⁴³, D. Elia¹⁰⁶, E. Endress¹⁰⁵, H. Engel⁵⁹, E. Epple¹⁴³, B. Erazmus¹¹⁶, F. Erhardt¹³³, B. Espagnon⁵¹, S. Esumi¹³², G. Eulisse³⁴, J. Eum⁹⁹, D. Evans¹⁰⁴, S. Evdokimov¹¹⁴, L. Fabbietti^{35,97}, J. Faivre⁷², A. Fantoni⁷³, M. Fasel^{75,88}, L. Feldkamp⁶¹, A. Feliciello¹¹³, G. Feofilov¹³⁸, J. Ferencei⁸⁷, A. Fernández Téllez², E. G. Ferreira¹⁶, A. Ferretti²⁵, A. Festanti²⁸, V. J. G. Feuillard^{65,71}, J. Figiel¹²⁰, M. A. S. Figueredo¹²³, S. Filchagin¹⁰², D. Finogeev⁵², F. M. Fionda²³, E. M. Fiore³², M. Floris³⁴, S. Foertsch⁶⁶, P. Foka¹⁰⁰, S. Fokin⁸³, E. Fragiaco¹¹², A. Francescon³⁴, A. Francisco¹¹⁶, U. Frankenfeld¹⁰⁰, G. G. Fronze²⁵, U. Fuchs³⁴, C. Furget⁷², A. Furs⁵², M. Fusco Girard²⁹, J. J. Gaardhøje⁸⁴, M. Gagliardi²⁵, A. M. Gago¹⁰⁵, K. Gajdosova⁸⁴, M. Gallio²⁵, C. D. Galvan¹²², P. Ganoti⁷⁸, C. Gao⁷, C. Garabatos¹⁰⁰, E. Garcia-Solis¹³, K. Garg²⁷, P. Garg⁴⁸, C. Gargiulo³⁴, P. Gasik^{35,97}, E. F. Gauger¹²¹, M. B. Gay Ducati⁶³, M. Germain¹¹⁶, P. Ghosh¹³⁹, S. K. Ghosh⁴, P. Gianotti⁷³, P. Giubellino^{34,100,113}, P. Giubilato²⁸, E. Gladysz-Dziadus¹²⁰, P. Gläsel⁹⁶, D. M. Gómez Coral⁶⁴, A. Gomez Ramirez⁵⁹, A. S. Gonzalez³⁴, V. Gonzalez¹⁰, P. González-Zamora¹⁰, S. Gorbunov⁴¹, L. Görlich¹²⁰, S. Gotovac¹¹⁹, V. Grabski⁶⁴, L. K. Graczykowski¹⁴⁰, K. L. Graham¹⁰⁴, L. Greiner⁷⁵, A. Grelli⁵³, C. Grigoras³⁴, V. Grigoriev⁷⁶, A. Grigoryan¹, S. Grigoryan⁶⁷, N. Grion¹¹², J. M. Gronefeld¹⁰⁰, F. Grosa³⁰, J. F. Grosse-Oetringhaus³⁴, R. Grosso¹⁰⁰, L. Gruber¹¹⁵, F. R. Grull⁵⁹, F. Guber⁵², R. Guernane⁷², B. Guerzoni²⁶, K. Gulbrandsen⁸⁴, T. Gunji¹³¹, A. Gupta⁹³, R. Gupta⁹³, I. B. Guzman², R. Haake³⁴, C. Hadjidakis⁵¹, H. Hamagaki^{77,131}, G. Hamar¹⁴², J. C. Hamon¹³⁵, J. W. Harris¹⁴³, A. Harton¹³, D. Hatzifotiadou¹⁰⁷, S. Hayashi¹³¹, S. T. Heckel⁶⁰, E. Hellbär⁶⁰, H. Helstrup³⁶, A. Herghelegiu⁸⁰, G. Herrera Corral¹¹, F. Herrmann⁶¹, B. A. Hess⁹⁵, K. F. Hetland³⁶, H. Hillemanns³⁴, B. Hippolyte¹³⁵, J. Hladky⁵⁶, B. Hohlweger⁹⁷, D. Horak³⁸, S. Hornung¹⁰⁰, R. Hosokawa¹³², P. Hristov³⁴, C. Hughes¹²⁹, T. J. Humanic¹⁸, N. Hussain⁴³, T. Hussain¹⁷, D. Hutter⁴¹, D. S. Hwang¹⁹, R. Ilkaev¹⁰², M. Inaba¹³², M. Ippolito^{76,83}, M. Irfan¹⁷, V. Isakov⁵²

M. Ivanov^{34,100}, V. Ivanov⁸⁹, V. Izucheev¹¹⁴, B. Jacak⁷⁵, N. Jacazio²⁶, P. M. Jacobs⁷⁵, M. B. Jadhav⁴⁷, S. Jadlovska¹¹⁸, J. Jadlovsky¹¹⁸, S. Jaelani⁵³, C. Jahnke³⁵, M. J. Jakubowska¹⁴⁰, M. A. Janik¹⁴⁰, P. H. S. Y. Jayarathna¹²⁶, C. Jena⁸¹, S. Jena¹²⁶, M. Jercic¹³³, R. T. Jimenez Bustamante¹⁰⁰, P. G. Jones¹⁰⁴, A. Jusko¹⁰⁴, P. Kalinak⁵⁵, A. Kalweit³⁴, J. Kamin⁶⁰, J. H. Kang¹⁴⁴, V. Kaplin⁷⁶, S. Kar¹³⁹, A. Karasu Uysal⁷⁰, O. Karavichev⁵², T. Karavicheva⁵², L. Karayan^{96,100}, E. Karpechev⁵², U. Kebschull⁵⁹, R. Keidel¹⁴⁵, D. L. D. Keijdener⁵³, M. Keil³⁴, B. Ketzer⁴⁴, P. Khan¹⁰³, S. A. Khan¹³⁹, A. Khanzadeev⁸⁹, Y. Kharlov¹¹⁴, A. Khatun¹⁷, A. Khuntia⁴⁸, M. M. Kielbowicz¹²⁰, B. Kileng³⁶, D. Kim¹⁴⁴, D. W. Kim⁴², D. J. Kim¹²⁷, H. Kim¹⁴⁴, J. S. Kim⁴², J. Kim⁹⁶, M. Kim⁵⁰, M. Kim¹⁴⁴, S. Kim¹⁹, T. Kim¹⁴⁴, S. Kirsch⁴¹, I. Kisel⁴¹, S. Kiselev⁵⁴, A. Kisiel¹⁴⁰, G. Kiss¹⁴², J. L. Klay⁶, C. Klein⁶⁰, J. Klein³⁴, C. Klein-Bösing⁶¹, S. Klewin⁹⁶, A. Kluge³⁴, M. L. Knichel⁹⁶, A. G. Knospe¹²⁶, C. Kobdaj¹¹⁷, M. Kofarago³⁴, T. Kollegger¹⁰⁰, A. Kolojvari¹³⁸, V. Kondratiev¹³⁸, N. Kondratyeva⁷⁶, E. Kondratyuk¹¹⁴, A. Konevskikh⁵², M. Kopcik¹¹⁸, M. Kour⁹³, C. Kouzinopoulos³⁴, O. Kovalenko⁷⁹, V. Kovalenko¹³⁸, M. Kowalski¹²⁰, G. Koyithatta Meethalevedu⁴⁷, I. Králik⁵⁵, A. Kravčáková³⁹, M. Krivda^{55,104}, F. Krizek⁸⁷, E. Kryshen⁸⁹, M. Krzewicki⁴¹, A. M. Kubera¹⁸, V. Kučera⁸⁷, C. Kuhn¹³⁵, P. G. Kuijjer⁸⁵, A. Kumar⁹³, J. Kumar⁴⁷, L. Kumar⁹¹, S. Kumar⁴⁷, S. Kundu⁸¹, P. Kurashvili⁷⁹, A. Kurepin⁵², A. B. Kurepin⁵², A. Kuryakin¹⁰², S. Kushpil⁸⁷, M. J. Kweon⁵⁰, Y. Kwon¹⁴⁴, S. L. La Pointe⁴¹, P. La Rocca²⁷, C. Lagana Fernandes¹²³, I. Lakomov³⁴, R. Langoy⁴⁰, K. Lapidus¹⁴³, C. Lara⁵⁹, A. Lardeux^{20,65}, A. Lattuca²⁵, E. Laudi³⁴, R. Lavicka³⁸, L. Lazaridis³⁴, R. Lea²⁴, L. Leardini⁹⁶, S. Lee¹⁴⁴, F. Lehas⁸⁵, S. Lehner¹¹⁵, J. Lehrbach⁴¹, R. C. Lemmon⁸⁶, V. Lenti¹⁰⁶, E. Leogrande⁵³, I. León Monzón¹²², P. Lévai¹⁴², S. Li⁷, X. Li¹⁴, J. Lien⁴⁰, R. Lietava¹⁰⁴, S. Lindal²⁰, V. Lindenstruth⁴¹, C. Lippmann¹⁰⁰, M. A. Lisa¹⁸, V. Litichevskiy⁴⁵, H. M. Ljunggren³³, W. J. Llope¹⁴¹, D. F. Lodato⁵³, P. I. Loenne²¹, V. Loginov⁷⁶, C. Loizides⁷⁵, P. Loncar¹¹⁹, X. Lopez⁷¹, E. López Torres⁹, A. Lowe¹⁴², P. Luettig⁶⁰, M. Lunardon²⁸, G. Luparello²⁴, M. Lupi³⁴, T. H. Lutz¹⁴³, A. Maevskaia⁵², M. Mager³⁴, S. Mahajan⁹³, S. M. Mahmood²⁰, A. Maire¹³⁵, R. D. Majka¹⁴³, M. Malaev⁸⁹, I. Maldonado Cervantes⁶², L. Malinina^{67,d}, D. Mal'kevich⁵⁴, P. Malzacher¹⁰⁰, A. Mamonov¹⁰², V. Manko⁸³, F. Manso⁷¹, V. Manzari¹⁰⁶, Y. Mao⁷, M. Marchisone^{66,130}, J. Mares⁵⁶, G. V. Margagliotti²⁴, A. Margotti¹⁰⁷, J. Margutti⁵³, A. Marín¹⁰⁰, C. Markert¹²¹, M. Marquard⁶⁰, N. A. Martin¹⁰⁰, P. Martinengo³⁴, J. A. L. Martinez⁵⁹, M. I. Martínez², G. Martínez García¹¹⁶, M. Martinez Pedreira³⁴, A. Mas¹²³, S. Masciocchi¹⁰⁰, M. Masera²⁵, A. Masoni¹⁰⁸, A. Mastroserio³², A. M. Mathis^{35,97}, A. Matyja^{120,129}, C. Mayer¹²⁰, J. Mazer¹²⁹, M. Mazzilli³², M. A. Mazzoni¹¹¹, F. Meddi²², Y. Melikyan⁷⁶, A. Menchaca-Rocha⁶⁴, E. Meninno²⁹, J. Mercado Pérez⁹⁶, M. Meres³⁷, S. Mhlanga⁹², Y. Miake¹³², M. M. Mieskolainen⁴⁵, D. L. Mihaylov⁹⁷, K. Mikhaylov^{54,67}, L. Milano⁷⁵, J. Milosevic²⁰, A. Mischke⁵³, A. N. Mishra⁴⁸, D. Miśkowiec¹⁰⁰, J. Mitra¹³⁹, C. M. Mitu⁵⁸, N. Mohammadi⁵³, B. Mohanty⁸¹, M. Mohisin Khan^{17,e}, E. Montes¹⁰, D. A. Moreira De Godoy⁶¹, L. A. P. Moreno², S. Moretto²⁸, A. Morreale¹¹⁶, A. Morsch³⁴, V. Muccifora⁷³, E. Mudnic¹¹⁹, D. Mühlheim⁶¹, S. Muhuri¹³⁹, M. Mukherjee^{4,139}, J. D. Mulligan¹⁴³, M. G. Munhoz¹²³, K. Munning⁴⁴, R. H. Munzer⁶⁰, H. Murakami¹³¹, S. Murray⁶⁶, L. Musa³⁴, J. Musinsky⁵⁵, C. J. Myers¹²⁶, B. Naik⁴⁷, R. Nair⁷⁹, B. K. Nandi⁴⁷, R. Nania¹⁰⁷, E. Nappi¹⁰⁶, A. Narayan⁴⁷, M. U. Naru¹⁵, H. Natal da Luz¹²³, C. Natrass¹²⁹, S. R. Navarro², K. Nayak⁸¹, R. Nayak⁴⁷, T. K. Nayak¹³⁹, S. Nazarenko¹⁰², A. Nedosekin⁵⁴, R. A. Negrao De Oliveira³⁴, L. Nellen⁶², S. V. Nesbo³⁶, F. Ng¹²⁶, M. Nicassio¹⁰⁰, M. Niculescu⁵⁸, J. Niedziela³⁴, B. S. Nielsen⁸⁴, S. Nikolaev⁸³, S. Nikulin⁸³, V. Nikulin⁸⁹, F. Noferini^{12,107}, P. Nomokonov⁶⁷, G. Nooren⁵³, J. C. C. Noris², J. Norman¹²⁸, A. Nyanin⁸³, J. Nystrand²¹, H. Oeschler^{96,a}, S. Oh¹⁴³, A. Ohlson^{34,96}, T. Okubo⁴⁶, L. Olah¹⁴², J. Oleniacz¹⁴⁰, A. C. Oliveira Da Silva¹²³, M. H. Oliver¹⁴³, J. Onderwaater¹⁰⁰, C. Oppedisano¹¹³, R. Orava⁴⁵, M. Oravec¹¹⁸, A. Ortiz Velasquez⁶², A. Oskarsson³³, J. Otwinowski¹²⁰, K. Oyama⁷⁷, Y. Pachmayer⁹⁶, V. Pacik⁸⁴, D. Pagano¹³⁷, P. Pagano²⁹, G. Paic⁶², P. Palni⁷, J. Pan¹⁴¹, A. K. Pandey⁴⁷, S. Panebianco⁶⁵, V. Papikyan¹, G. S. Pappalardo¹⁰⁹, P. Pareek⁴⁸, J. Park⁵⁰, W. J. Park¹⁰⁰, S. Parmar⁹¹, A. Passfeld⁶¹, S. P. Pathak¹²⁶, V. Patricchio¹⁰⁶, R. N. Patra¹³⁹, B. Paul¹¹³, H. Pei⁷, T. Peitzmann⁵³, X. Peng⁷, L. G. Pereira⁶³, H. Pereira Da Costa⁶⁵, D. Peresunko^{76,83}, E. Perez Lezama⁶⁰, V. Peskov⁶⁰, Y. Pestov⁵, V. Petráček³⁸, V. Petrov¹¹⁴, M. Petrovici⁸⁰, C. Petta²⁷, R. P. Pezzi⁶³, S. Piano¹¹², M. Pikna³⁷, P. Pillot¹¹⁶, L. O. D. L. Pimentel⁸⁴, O. Pinazza^{34,107}, L. Pinsky¹²⁶, D. B. Piyarathna¹²⁶, M. Płoskoń⁷⁵, M. Planinic¹³³, J. Pluta¹⁴⁰, S. Pochybova¹⁴², P. L. M. Podesta-Lerma¹²², M. G. Poghosyan⁸⁸, B. Polichtchouk¹¹⁴, N. Poljak¹³³, W. Poonsawat¹¹⁷, A. Pop⁸⁰, H. Poppenborg⁶¹, S. Porteboeuf-Houssais⁷¹, J. Porter⁷⁵, J. Pospisil⁸⁷, V. Pozdniakov⁶⁷, S. K. Prasad⁴, R. Preghenella^{34,107}, F. Prino¹¹³, C. A. Pruneau¹⁴¹, I. Pshenichnov⁵², M. Puccio²⁵, G. Puddu²³, P. Pujahari¹⁴¹, V. Punin¹⁰², J. Putschke¹⁴¹, H. Qvigstad²⁰, A. Rachevski¹¹², S. Raha⁴, S. Rajput⁹³, J. Rak¹²⁷, A. Rakotozafindrabe⁶⁵, L. Ramello³¹, F. Rami¹³⁵, D. B. Rana¹²⁶, R. Raniwala⁹⁴, S. Raniwala⁹⁴, S. S. Räsänen⁴⁵, B. T. Rascanu⁶⁰, D. Rathee⁹¹, V. Ratza⁴⁴, I. Ravasenga³⁰, K. F. Read^{88,129}, K. Redlich⁷⁹, A. Rehman²¹, P. Reichelt⁶⁰, F. Reidt³⁴, X. Ren⁷, R. Renfordt⁶⁰, A. R. Reolon⁷³, A. Reshetin⁵², K. Reygiers⁹⁶, V. Riabov⁸⁹, R. A. Ricci⁷⁴, T. Richert^{33,53}, M. Richter²⁰, P. Riedler³⁴, W. Riegler³⁴, F. Riggi²⁷, C. Ristea⁵⁸, M. Rodríguez Cahuantzi², K. Røed²⁰, E. Rogochaya⁶⁷, D. Rohr⁴¹, D. Röhrich²¹, P. S. Rokita¹⁴⁰, F. Ronchetti^{34,73}, L. Ronflette¹¹⁶, P. Rosnet⁷¹, A. Rossi²⁸, A. Rotondi¹³⁶, F. Roukoutakis⁷⁸, A. Roy⁴⁸, C. Roy¹³⁵, P. Roy¹⁰³, A. J. Rubio Montero¹⁰, O. V. Rueda⁶², R. Rui²⁴, R. Russo²⁵, A. Rustamov⁸², E. Ryabinkin⁸³, Y. Ryabov⁸⁹, A. Rybicki¹²⁰, S. Saarinen⁴⁵, S. Sadhu¹³⁹, S. Sadovsky¹¹⁴, K. Šafařík³⁴, S. K. Saha¹³⁹, B. Sahlmuller⁶⁰

B. Sahoo⁴⁷, P. Sahoo⁴⁸, R. Sahoo⁴⁸, S. Sahoo⁵⁷, P. K. Sahu⁵⁷, J. Saini¹³⁹, S. Sakai^{73,132}, M. A. Saleh¹⁴¹, J. Salzwedel¹⁸, S. Sambyal⁹³, V. Samsonov^{76,89}, A. Sandoval⁶⁴, D. Sarkar¹³⁹, N. Sarkar¹³⁹, P. Sarma⁴³, M. H. P. Sas⁵³, E. Scapparone¹⁰⁷, F. Scarlassara²⁸, R. P. Scharenberg⁹⁸, H. S. Scheid⁶⁰, C. Schiaua⁸⁰, R. Schicker⁹⁶, C. Schmidt¹⁰⁰, H. R. Schmidt⁹⁵, M. O. Schmidt⁹⁶, M. Schmidt⁹⁵, S. Schuchmann⁶⁰, J. Schukraft³⁴, Y. Schutz^{34,116,135}, K. Schwarz¹⁰⁰, K. Schweda¹⁰⁰, G. Scioli²⁶, E. Scomparin¹¹³, R. Scott¹²⁹, M. Šefčík³⁹, J. E. Seger⁹⁰, Y. Sekiguchi¹³¹, D. Sekihata⁴⁶, I. Selyuzhenkov¹⁰⁰, K. Senosi⁶⁶, S. Senyukov^{3,34,135}, E. Serradilla^{10,64}, P. Sett⁴⁷, A. Sevcenco⁵⁸, A. Shabanov⁵², A. Shabetai¹¹⁶, O. Shadura³, R. Shahoyan³⁴, A. Shangaraev¹¹⁴, A. Sharma⁹¹, A. Sharma⁹³, M. Sharma⁹³, M. Sharma⁹³, N. Sharma^{91,129}, A. I. Sheikh¹³⁹, K. Shigaki⁴⁶, Q. Shou⁷, K. Shtejer^{9,25}, Y. Sibiriak⁸³, S. Siddhanta¹⁰⁸, K. M. Sielewicz³⁴, T. Siemiarzczuk⁷⁹, D. Silvermyr³³, C. Silvestre⁷², G. Simatovic¹³³, G. Simonetti³⁴, R. Singaraju¹³⁹, R. Singh⁸¹, V. Singhal¹³⁹, T. Sinha¹⁰³, B. Sitar³⁷, M. Sitta³¹, T. B. Skaali²⁰, M. Slupecki¹²⁷, N. Smirnov¹⁴³, R. J. M. Snellings⁵³, T. W. Snellman¹²⁷, J. Song⁹⁹, M. Song¹⁴⁴, F. Soramel²⁸, S. Sorensen¹²⁹, F. Sozzi¹⁰⁰, E. Spiriti⁷³, I. Sputowska¹²⁰, B. K. Srivastava⁹⁸, J. Stachel⁹⁶, I. Stan⁵⁸, P. Stankus⁸⁸, E. Stenlund³³, J. H. Stiller⁹⁶, D. Stocco¹¹⁶, P. Strmen³⁷, A. A. P. Suaide¹²³, T. Sugitate⁴⁶, C. Suire⁵¹, M. Suleymanov¹⁵, M. Suljic²⁴, R. Sultanov⁵⁴, M. Šumbera⁸⁷, S. Sumowidagdo⁴⁹, K. Suzuki¹¹⁵, S. Swain⁵⁷, A. Szabo³⁷, I. Szarka³⁷, A. Szczepankiewicz¹⁴⁰, M. Szymanski¹⁴⁰, U. Tabassam¹⁵, J. Takahashi¹²⁴, G. J. Tambave²¹, N. Tanaka¹³², M. Tarhini⁵¹, M. Tariq¹⁷, M. G. Tarzila⁸⁰, A. Tauro³⁴, G. Tejada Muñoz², A. Telesca³⁴, K. Terasaki¹³¹, C. Terrevoli²⁸, B. Teyssier¹³⁴, D. Thakur⁴⁸, S. Thakur¹³⁹, D. Thomas¹²¹, R. Tieulent¹³⁴, A. Tikhonov⁵², A. R. Timmins¹²⁶, A. Toia⁶⁰, S. Tripathy⁴⁸, S. Trogolo²⁵, G. Trombetta³², V. Trubnikov³, W. H. Trzaska¹²⁷, B. A. Trzeciak⁵³, T. Tsuji¹³¹, A. Tumkin¹⁰², R. Turrisi¹¹⁰, T. S. Tveter²⁰, K. Ullaland²¹, E. N. Umaka¹²⁶, A. Uras¹³⁴, G. L. Usai²³, A. Utrobicic¹³³, M. Vala^{55,118}, J. Van Der Maarel⁵³, J. W. Van Hoorne³⁴, M. van Leeuwen⁵³, T. Vanat⁸⁷, P. Vande Vyvre³⁴, D. Varga¹⁴², A. Vargas², M. Vargyas¹²⁷, R. Varma⁴⁷, M. Vasileiou⁷⁸, A. Vasiliev⁸³, A. Vauthier⁷², O. Vázquez Doce^{35,97}, V. Vechernin¹³⁸, A. M. Veen⁵³, A. Velure²¹, E. Vercellin²⁵, S. Vergara Limón², R. Vernet⁸, R. Vértesi¹⁴², L. Vickovic¹¹⁹, S. Vigolo⁵³, J. Viinikainen¹²⁷, Z. Vilakazi¹³⁰, O. Villalobos Baillie¹⁰⁴, A. Villatoro Tello², A. Vinogradov⁸³, L. Vinogradov¹³⁸, T. Virgili²⁹, V. Vislavicius³³, A. Vodopyanov⁶⁷, M. A. Völkl⁹⁶, K. Voloshin⁵⁴, S. A. Voloshin¹⁴¹, G. Volpe³², B. von Haller³⁴, I. Vorobyev^{35,97}, D. Voscek¹¹⁸, D. Vranic^{34,100}, J. Vrláková³⁹, B. Wagner²¹, J. Wagner¹⁰⁰, H. Wang⁵³, M. Wang⁷, D. Watanabe¹³², Y. Watanabe¹³¹, M. Weber¹¹⁵, S. G. Weber¹⁰⁰, D. F. Weiser⁹⁶, J. P. Wessels⁶¹, U. Westerhoff⁶¹, A. M. Whitehead⁹², J. Wiechula⁶⁰, J. Wikne²⁰, G. Wilk⁷⁹, J. Wilkinson⁹⁶, G. A. Willems⁶¹, M. C. S. Williams¹⁰⁷, B. Windelband⁹⁶, W. E. Witt¹²⁹, S. Yalcin⁷⁰, P. Yang⁷, S. Yano⁴⁶, Z. Yin⁷, H. Yokoyama^{72,132}, I.-K. Yoo^{34,99}, J. H. Yoon⁵⁰, V. Yurchenko³, V. Zaccolo^{84,113}, A. Zaman¹⁵, C. Zampolli³⁴, H. J. C. Zanoli¹²³, N. Zardoshti¹⁰⁴, A. Zarochentsev¹³⁸, P. Závada⁵⁶, N. Zaviyalov¹⁰², H. Zbroszczyk¹⁴⁰, M. Zhalov⁸⁹, H. Zhang^{7,21}, X. Zhang⁷, Y. Zhang⁷, C. Zhang⁵³, Z. Zhang⁷, C. Zhao²⁰, N. Zhigareva⁵⁴, D. Zhou⁷, Y. Zhou⁸⁴, Z. Zhou²¹, H. Zhu^{7,21}, J. Zhu^{7,116}, X. Zhu⁷, A. Zichichi^{12,26}, A. Zimmermann⁹⁶, M. B. Zimmermann^{34,61}, S. Zimmermann¹¹⁵, G. Zinovjev³, J. Zmeskal¹¹⁵

¹ A.I. Alikhanyan National Science Laboratory (Yerevan Physics Institute) Foundation, Yerevan, Armenia

² Benemérita Universidad Autónoma de Puebla, Puebla, Mexico

³ Bogolyubov Institute for Theoretical Physics, Kiev, Ukraine

⁴ Department of Physics, Centre for Astroparticle Physics and Space Science (CAPSS), Bose Institute, Kolkata, India

⁵ Budker Institute for Nuclear Physics, Novosibirsk, Russia

⁶ California Polytechnic State University, San Luis Obispo, CA, USA

⁷ Central China Normal University, Wuhan, China

⁸ Centre de Calcul de l'IN2P3, Villeurbanne, Lyon, France

⁹ Centro de Aplicaciones Tecnológicas y Desarrollo Nuclear (CEADEN), Havana, Cuba

¹⁰ Centro de Investigaciones Energéticas Medioambientales y Tecnológicas (CIEMAT), Madrid, Spain

¹¹ Centro de Investigación y de Estudios Avanzados (CINVESTAV), Mexico City, Mérida, Mexico

¹² Centro Fermi-Museo Storico della Fisica e Centro Studi e Ricerche "Enrico Fermi", Rome, Italy

¹³ Chicago State University, Chicago, IL, USA

¹⁴ China Institute of Atomic Energy, Beijing, China

¹⁵ COMSATS Institute of Information Technology (CIIT), Islamabad, Pakistan

¹⁶ Departamento de Física de Partículas and IGFAE, Universidad de Santiago de Compostela, Santiago de Compostela, Spain

¹⁷ Department of Physics, Aligarh Muslim University, Aligarh, India

¹⁸ Department of Physics, Ohio State University, Columbus, OH, USA

¹⁹ Department of Physics, Sejong University, Seoul, South Korea

²⁰ Department of Physics, University of Oslo, Oslo, Norway

- 21 Department of Physics and Technology, University of Bergen, Bergen, Norway
- 22 Dipartimento di Fisica dell'Università 'La Sapienza' and Sezione INFN, Rome, Italy
- 23 Dipartimento di Fisica dell'Università and Sezione INFN, Cagliari, Italy
- 24 Dipartimento di Fisica dell'Università and Sezione INFN, Trieste, Italy
- 25 Dipartimento di Fisica dell'Università and Sezione INFN, Turin, Italy
- 26 Dipartimento di Fisica e Astronomia dell'Università and Sezione INFN, Bologna, Italy
- 27 Dipartimento di Fisica e Astronomia dell'Università and Sezione INFN, Catania, Italy
- 28 Dipartimento di Fisica e Astronomia dell'Università and Sezione INFN, Padua, Italy
- 29 Dipartimento di Fisica 'E.R. Caianiello' dell'Università and Gruppo Collegato INFN, Salerno, Italy
- 30 Dipartimento DISAT del Politecnico and Sezione INFN, Turin, Italy
- 31 Dipartimento di Scienze e Innovazione Tecnologica dell'Università del Piemonte Orientale and INFN Sezione di Torino, Alessandria, Italy
- 32 Dipartimento Interateneo di Fisica 'M. Merlin' and Sezione INFN, Bari, Italy
- 33 Division of Experimental High Energy Physics, University of Lund, Lund, Sweden
- 34 European Organization for Nuclear Research (CERN), Geneva, Switzerland
- 35 Excellence Cluster Universe, Technische Universität München, Munich, Germany
- 36 Faculty of Engineering, Bergen University College, Bergen, Norway
- 37 Faculty of Mathematics, Physics and Informatics, Comenius University, Bratislava, Slovakia
- 38 Faculty of Nuclear Sciences and Physical Engineering, Czech Technical University in Prague, Prague, Czech Republic
- 39 Faculty of Science, P.J. Šafárik University, Kosice, Slovakia
- 40 Faculty of Technology, Buskerud and Vestfold University College, Tonsberg, Norway
- 41 Frankfurt Institute for Advanced Studies, Johann Wolfgang Goethe-Universität Frankfurt, Frankfurt, Germany
- 42 Gangneung-Wonju National University, Gangneung, South Korea
- 43 Department of Physics, Gauhati University, Guwahati, India
- 44 Helmholtz-Institut für Strahlen- und Kernphysik, Rheinische Friedrich-Wilhelms-Universität Bonn, Bonn, Germany
- 45 Helsinki Institute of Physics (HIP), Helsinki, Finland
- 46 Hiroshima University, Hiroshima, Japan
- 47 Indian Institute of Technology Bombay (IIT), Mumbai, India
- 48 Indian Institute of Technology Indore, Indore, India
- 49 Indonesian Institute of Sciences, Jakarta, Indonesia
- 50 Inha University, Incheon, South Korea
- 51 Institut de Physique Nucléaire d'Orsay (IPNO), Université Paris-Sud, CNRS-IN2P3, Orsay, France
- 52 Institute for Nuclear Research, Academy of Sciences, Moscow, Russia
- 53 Institute for Subatomic Physics of Utrecht University, Utrecht, The Netherlands
- 54 Institute for Theoretical and Experimental Physics, Moscow, Russia
- 55 Institute of Experimental Physics, Slovak Academy of Sciences, Kosice, Slovakia
- 56 Institute of Physics, Academy of Sciences of the Czech Republic, Prague, Czech Republic
- 57 Institute of Physics, Bhubaneswar, India
- 58 Institute of Space Science (ISS), Bucharest, Romania
- 59 Institut für Informatik, Johann Wolfgang Goethe-Universität Frankfurt, Frankfurt, Germany
- 60 Institut für Kernphysik, Johann Wolfgang Goethe-Universität Frankfurt, Frankfurt, Germany
- 61 Institut für Kernphysik, Westfälische Wilhelms-Universität Münster, Münster, Germany
- 62 Instituto de Ciencias Nucleares, Universidad Nacional Autónoma de México, Mexico City, Mexico
- 63 Instituto de Física, Universidade Federal do Rio Grande do Sul (UFRGS), Porto Alegre, Brazil
- 64 Instituto de Física, Universidad Nacional Autónoma de México, Mexico City, Mexico
- 65 IRFU, CEA, Université Paris-Saclay, 91191 Gif-sur-Yvette France, Saclay, France
- 66 iThemba LABS, National Research Foundation, Somerset West, South Africa
- 67 Joint Institute for Nuclear Research (JINR), Dubna, Russia
- 68 Konkuk University, Seoul, South Korea
- 69 Korea Institute of Science and Technology Information, Taejeon, South Korea
- 70 KTO Karatay University, Konya, Turkey
- 71 Laboratoire de Physique Corpusculaire (LPC), Clermont Université, Université Blaise Pascal, CNRS-IN2P3, Clermont-Ferrand, France

- ⁷² Laboratoire de Physique Subatomique et de Cosmologie, Université Grenoble-Alpes, CNRS-IN2P3, Grenoble, France
- ⁷³ Laboratori Nazionali di Frascati, INFN, Frascati, Italy
- ⁷⁴ Laboratori Nazionali di Legnaro, INFN, Legnaro, Italy
- ⁷⁵ Lawrence Berkeley National Laboratory, Berkeley, CA, USA
- ⁷⁶ Moscow Engineering Physics Institute, Moscow, Russia
- ⁷⁷ Nagasaki Institute of Applied Science, Nagasaki, Japan
- ⁷⁸ Physics Department, National and Kapodistrian University of Athens, Athens, Greece
- ⁷⁹ National Centre for Nuclear Studies, Warsaw, Poland
- ⁸⁰ National Institute for Physics and Nuclear Engineering, Bucharest, Romania
- ⁸¹ National Institute of Science Education and Research, Bhubaneswar, India
- ⁸² National Nuclear Research Center, Baku, Azerbaijan
- ⁸³ National Research Centre Kurchatov Institute, Moscow, Russia
- ⁸⁴ Niels Bohr Institute, University of Copenhagen, Copenhagen, Denmark
- ⁸⁵ Nikhef, Nationaal instituut voor subatomaire fysica, Amsterdam, The Netherlands
- ⁸⁶ Nuclear Physics Group, STFC Daresbury Laboratory, Daresbury, UK
- ⁸⁷ Nuclear Physics Institute, Academy of Sciences of the Czech Republic, Řež u Prahy, Czech Republic
- ⁸⁸ Oak Ridge National Laboratory, Oak Ridge, TN, USA
- ⁸⁹ Petersburg Nuclear Physics Institute, Gatchina, Russia
- ⁹⁰ Physics Department, Creighton University, Omaha, NE, USA
- ⁹¹ Physics Department, Panjab University, Chandigarh, India
- ⁹² Physics Department, University of Cape Town, Cape Town, South Africa
- ⁹³ Physics Department, University of Jammu, Jammu, India
- ⁹⁴ Physics Department, University of Rajasthan, Jaipur, India
- ⁹⁵ Physikalisches Institut, Eberhard Karls Universität Tübingen, Tübingen, Germany
- ⁹⁶ Physikalisches Institut, Ruprecht-Karls-Universität Heidelberg, Heidelberg, Germany
- ⁹⁷ Physik Department, Technische Universität München, Munich, Germany
- ⁹⁸ Purdue University, West Lafayette, IN, USA
- ⁹⁹ Pusan National University, Pusan, South Korea
- ¹⁰⁰ Research Division and ExtreMe Matter Institute EMMI, GSI Helmholtzzentrum für Schwerionenforschung GmbH, Darmstadt, Germany
- ¹⁰¹ Rudjer Bošković Institute, Zagreb, Croatia
- ¹⁰² Russian Federal Nuclear Center (VNIIEF), Sarov, Russia
- ¹⁰³ Saha Institute of Nuclear Physics, Kolkata, India
- ¹⁰⁴ School of Physics and Astronomy, University of Birmingham, Birmingham, UK
- ¹⁰⁵ Sección Física, Departamento de Ciencias, Pontificia Universidad Católica del Perú, Lima, Peru
- ¹⁰⁶ Sezione INFN, Bari, Italy
- ¹⁰⁷ Sezione INFN, Bologna, Italy
- ¹⁰⁸ Sezione INFN, Cagliari, Italy
- ¹⁰⁹ Sezione INFN, Catania, Italy
- ¹¹⁰ Sezione INFN, Padua, Italy
- ¹¹¹ Sezione INFN, Rome, Italy
- ¹¹² Sezione INFN, Trieste, Italy
- ¹¹³ Sezione INFN, Turin, Italy
- ¹¹⁴ SSC IHEP of NRC Kurchatov institute, Protvino, Russia
- ¹¹⁵ Stefan Meyer Institut für Subatomare Physik (SMI), Vienna, Austria
- ¹¹⁶ SUBATECH, IMT Atlantique, Université de Nantes, CNRS-IN2P3, Nantes, France
- ¹¹⁷ Suranaree University of Technology, Nakhon Ratchasima, Thailand
- ¹¹⁸ Technical University of Košice, Kosice, Slovakia
- ¹¹⁹ Technical University of Split FESB, Split, Croatia
- ¹²⁰ The Henryk Niewodniczanski Institute of Nuclear Physics, Polish Academy of Sciences, Kraków, Poland
- ¹²¹ Physics Department, The University of Texas at Austin, Austin, TX, USA
- ¹²² Universidad Autónoma de Sinaloa, Culiacán, Mexico
- ¹²³ Universidade de São Paulo (USP), São Paulo, Brazil

- ¹²⁴ Universidade Estadual de Campinas (UNICAMP), Campinas, Brazil
¹²⁵ Universidade Federal do ABC, Santo Andre, Brazil
¹²⁶ University of Houston, Houston, TX, USA
¹²⁷ University of Jyväskylä, Jyväskylä, Finland
¹²⁸ University of Liverpool, Liverpool, UK
¹²⁹ University of Tennessee, Knoxville, TN, USA
¹³⁰ University of the Witwatersrand, Johannesburg, South Africa
¹³¹ University of Tokyo, Tokyo, Japan
¹³² University of Tsukuba, Tsukuba, Japan
¹³³ University of Zagreb, Zagreb, Croatia
¹³⁴ Université de Lyon, Université Lyon 1, CNRS/IN2P3, IPN-Lyon, Villeurbanne, Lyon, France
¹³⁵ Université de Strasbourg, CNRS, IPHC UMR 7178, 67000 Strasbourg, France
¹³⁶ Università degli Studi di Pavia, Pavia, Italy
¹³⁷ Università di Brescia, Brescia, Italy
¹³⁸ V. Fock Institute for Physics, St. Petersburg State University, St. Petersburg, Russia
¹³⁹ Variable Energy Cyclotron Centre, Kolkata, India
¹⁴⁰ Warsaw University of Technology, Warsaw, Poland
¹⁴¹ Wayne State University, Detroit, MI, USA
¹⁴² Wigner Research Centre for Physics, Hungarian Academy of Sciences, Budapest, Hungary
¹⁴³ Yale University, New Haven, CT, USA
¹⁴⁴ Yonsei University, Seoul, South Korea
¹⁴⁵ Zentrum für Technologietransfer und Telekommunikation (ZTT), Fachhochschule Worms, Worms, Germany

^a Deceased

^b Also at: Dipartimento DET del Politecnico di Torino, Turin, Italy

^c Also at: Georgia State University, Atlanta, Georgia, USA

^d Also at: M.V. Lomonosov Moscow State University, D.V. Skobeltsyn Institute of Nuclear, Physics, Moscow, Russia

^e Also at: Department of Applied Physics, Aligarh Muslim University, Aligarh, India