



Erratum: Software and computing for Run 3 of the ATLAS experiment at the LHC

ATLAS Collaboration*

CERN, 1211 Geneva 23, Switzerland

© CERN for the benefit of the ATLAS Collaboration 2025

Erratum: Eur. Phys. J. C (2025) 85:234

<https://doi.org/10.1140/epjc/s10052-024-13701-w>

In this article, the following collaboration members were missing:

John Apostolakis at CERN, Geneva, Switzerland

Imran Latif at Physics Department, Brookhaven National Laboratory, Upton NY, USA

Christian Lepore at Physics Department, Brookhaven National Laboratory, Upton NY, USA

Mark Lukasczyk at Physics Department, Brookhaven National Laboratory, Upton NY, USA

Mihaly Novak at CERN, Geneva, Switzerland

Yingzi Wu at Physics Department, Brookhaven National Laboratory, Upton NY, USA

Fedor Prokoshin, affiliated with an institute covered by a cooperation agreement with CERN, Geneva, Switzerland

Andrey Sapronov, affiliated with an institute covered by a cooperation agreement with CERN, Geneva, Switzerland

The original article can be found online at <https://doi.org/10.1140/epjc/s10052-024-13701-w>.

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

ATLAS Collaboration*

G. Aad¹⁰⁴, E. Aakvaag¹⁶, B. Abbott¹²², K. Abeling⁵⁶, N. J. Abicht⁴⁹, S. H. Abidi²⁹, M. Aboelela⁴⁴, A. Aboulhorma^{35c}, H. Abramowicz¹⁵⁴, H. Abreu¹⁵³, Y. Abulaiti¹¹⁹, E. Accion Garcia⁵³, B. S. Acharya^{70a,70b,1}, V. Acin Portella⁵³, A. Ackermann^{64a}, C. Acosta Silva⁵³, C. Adam Bourdarios⁴, L. Adamczyk^{87a}, S. V. Addepalli²⁶, M. J. Addison¹⁰³, J. Adelman¹¹⁷, A. Adiguzel^{21c}, T. Adye¹³⁶, A. A. Affolder¹³⁸, Y. Afik³⁹, M. N. Agaras¹³, J. Agarwala^{74a,74b}, A. Aggarwal¹⁰², C. Agheorghiesei^{27c}, A. Ahmad^{36a}, F. Ahmadov^{38,z}, W. S. Ahmed¹⁰⁶, S. Ahuja⁹⁷, X. Ai^{63e}, G. Aielli^{77a,77b}, A. Aikot¹⁶⁵, M. Ait Tamliah^{35e}, B. Aitbenkhik^{35a}, M. Akbiyik¹⁰², T. P. A. Åkesson¹⁰⁰, A. V. Akimov³⁷, D. Akiyama¹⁷⁰, N. N. Akolkar²⁴, S. Aktas^{21a}, K. Al Khoury⁴¹, G. L. Alberghi^{23b}, J. Albert¹⁶⁷, P. Albicocco⁵⁴, G. L. Albouy⁶¹, S. Alderweireldt⁵², Z. L. Alegria¹²³, M. Aleksa^{36a}, I. N. Aleksandrov³⁸, A. Alekseev⁸, C. Alexa^{27b}, E. Alexandrov³⁸, T. Alexopoulos¹⁰, F. Alfonsi^{23b}, M. Algren⁵⁷, M. Alhroob¹⁴⁴, B. Ali¹³⁴, H. M. J. Ali⁹³, S. Ali³¹, S. W. Alibocus⁹⁴, M. Aliev^{33c}, G. Alimonti^{72a}, W. Alkakh⁵⁶, C. Allaire⁶⁷, B. M. M. Allbrooke¹⁴⁹, J. F. Allen⁵², C. A. Allendes Flores^{139f}, P. P. Allport²⁰, A. Aloisio^{73a,73b}, F. Alonso⁹², C. Alpighiani¹⁴¹, M. Alvarez Estevez¹⁰¹, A. Alvarez Fernandez¹⁰², M. Alves Cardoso⁵⁷, M. G. Alviggi^{73a,73b}, M. Aly¹⁰³, Y. Amaral Coutinho^{84b}, A. Ambler¹⁰⁶, C. Amelung^{36a}, M. Ameri¹⁰³, C. G. Ames¹¹¹, D. Amidei¹⁰⁸, K. J. Amirie¹⁵⁷, S. P. Amor Dos Santos^{132a}, K. R. Amos¹⁶⁵, S. An⁸⁵, V. Ananiev¹²⁷, C. Anastopoulos¹⁴², T. Andeen¹¹, J. K. Anders^{36a}, S. Y. Andrean^{47a,47b}, A. Andreazza^{72a,72b}, S. Angelidakis⁹, A. Angerami^{41,ab}, A. V. Anisenkov³⁷, A. Annovi^{75a}, C. Antel⁵⁷, E. Antipov¹⁴⁸, M. Antonelli⁵⁴, F. Anulli^{76a}, M. Aoki⁸⁵, T. Aoki¹⁵⁶, M. A. Aparo¹⁴⁹, L. Aperio Bella⁴⁸, C. Appelt¹⁸, A. Apyan²⁶, S. J. Arbiol Val⁸⁸, C. Arcangeletti⁵⁴, A. T. H. Arce⁵¹, E. Arena⁹⁴, J-F. Arguin¹¹⁰, S. Argyropoulos⁵⁵, J. -H. Arling⁴⁸, O. Arnaez⁴, H. Arnold¹¹⁶, G. Artoni^{76a,76b}, H. Asada¹¹³, K. Asai¹²⁰, S. Asai¹⁵⁶, N. A. Asbah^{36a}, K. Assamagan²⁹, R. Astalos^{28a}, K. S. V. Astrand¹⁰⁰, S. Atashi¹⁶¹, R. J. Atkin^{33a}, M. Atkinson¹⁶⁴, H. Atmani^{35f}, P. A. Atlasiddha¹³⁰, K. Augsten¹³⁴, S. Auricchio^{73a,73b}, A. D. Aurio²⁰, V. A. Austrup¹⁰³, G. Avolio^{36a}, K. Axiotis⁵⁷, G. Azuelos^{110,af}, D. Babal^{28b}, E. Bach¹⁰⁵, H. Bachacou¹³⁷, K. Bachas^{155,p}, A. Bachi³⁴, F. Backman^{47a,47b}, A. Badea³⁹, T. M. Baer¹⁰⁸, P. Bagnaia^{76a,76b}, M. Bahmani¹⁸, D. Bahner⁵⁵, K. Bai¹²⁵, J. T. Baines¹³⁶, L. Baines⁹⁶, O. K. Baker¹⁷⁴, E. Bakos¹⁵, D. Bakshi Gupta⁸, V. Balakrishnan¹²², R. Balasubramanian¹¹⁶, E. M. Baldin³⁷, P. Balek^{87a}, E. Ballabene^{23a,23b}, F. Balli¹³⁷, L. M. Baltes^{64a}, W. K. Balunas³², J. Balz¹⁰², E. Banas⁸⁸, M. Bandieramonte¹³¹, A. Bandyopadhyay²⁴, S. Bansal²⁴, L. Barak¹⁵⁴, M. Barakat⁴⁸, E. L. Barberio¹⁰⁷, D. Barberis^{58a,58b}, M. Barbero¹⁰⁴, M. Z. Barel¹¹⁶, K. N. Barends^{33a}, T. Barillari¹¹², M-S. Barisits^{36a}, T. Barklow¹⁴⁶, P. Baron¹²⁴, D. A. Baron Moreno¹⁰³, A. Baroncelli^{63a}, G. Barone²⁹, A. J. Barr¹²⁸, J. D. Barr⁹⁸, F. Barreiro¹⁰¹, J. Barreiro Guimarães da Costa^{14a}, F. H. Barreiro Megino⁸, U. Barron¹⁵⁴, M. G. Barros Teixeira^{132a}, S. Barsov³⁷, F. Bartels^{64a}, R. Bartoldus¹⁴⁶, A. E. Barton⁹³, P. Bartos^{28a}, A. Basan¹⁰², M. Baselga⁴⁹, A. Bassalat^{67,b}, M. J. Basso^{158a}, R. Bate¹⁶⁶, R. L. Bates⁶⁰, S. Batlamous¹⁰¹, B. Batool¹⁴⁴, M. Battaglia¹³⁸, D. Battulga¹⁸, M. Baue^{76a,76b}, M. Bauer^{36a}, P. Bauer²⁴, L. T. Bazzano Hurrell³⁰, J. B. Beacham⁵¹, T. Beau¹²⁹, J. Y. Beaucamp⁹², P. H. Beauchemin¹⁶⁰, P. Bechtel²⁴, H. P. Beck^{19,o}, K. Becker¹⁶⁹, A. J. Beddall⁸³, V. A. Bednyakov³⁸, C. P. Bee¹⁴⁸, L. J. Beemster¹⁵, T. A. Beermann^{36a}, M. Begalli^{84d}, M. Begel²⁹, A. Behera¹⁴⁸, J. K. Behr⁴⁸, J. F. Beirer^{36a}, F. Beisiegel²⁴, M. Belfkir^{118b}, G. Bella¹⁵⁴, L. Bellagamba^{23b}, A. Bellerive³⁴, P. Bellos²⁰, K. Beloborodov³⁷, D. Benchebroun^{35a}, F. Bendebba^{35a}, Y. Benhammou¹⁵⁴, D. P. Benjamin²⁹, K. C. Benkendorfer⁶², L. Beresford⁴⁸, M. Beretta⁵⁴, E. Bergeas Kuutmann¹⁶³, N. Berger⁴, B. Bergmann¹³⁴, J. Beringer^{17a}, G. Bernardi⁵, C. Bernius¹⁴⁶, F. U. Bernlochner²⁴, F. Bernon^{36a,104}, A. Berrocal Guardia¹³, T. Berry⁹⁷, P. Berta¹³⁵, A. Berthold⁵⁰, S. Bethke¹¹², A. Betti^{76a,76b}, A. J. Bevan⁹⁶, N. K. Bhalla⁵⁵, M. Bhamjee^{33c}, S. Bhatta¹⁴⁸, D. S. Bhattacharya¹⁶⁸, P. Bhattarai¹⁴⁶, K. D. Bhide⁵⁵, V. S. Bhopatkar¹²³, R. M. Bianchi¹³¹, G. Bianco^{23a,23b}, O. Biebel¹¹¹, R. Bielski¹²⁵, M. Biglietti^{78a}, C. S. Billingsley⁴⁴, M. Bindi⁵⁶, A. Bingul^{21b}, C. Bini^{76a,76b}, A. Biondini⁹⁴, C. J. Birch-sykes¹⁰³, G. A. Bird³², M. Birman¹⁷¹, M. Birs¹³⁵, S. Biryukov¹⁴⁹, T. Bisanz⁴⁹, E. Bisceglie^{43a,43b}, J. P. Biswal¹³⁶, D. Biswas¹⁴⁴, I. Bloch⁴⁸, A. Blue⁶⁰, U. Blumenschein⁹⁶, J. Blumenthal¹⁰², V. S. Bobrovnikov³⁷, M. Boehler⁵⁵, B. Boehm¹⁶⁸, D. Bogavac^{36a}, A. G. Bogdanchikov³⁷, C. Bohm^{47a}, V. Boisvert⁹⁷, P. Bokan^{36a}, T. Bold^{87a}, M. Bomben⁵, M. Bona⁹⁶, M. Boonekamp¹³⁷, C. D. Booth⁹⁷, A. G. Borbély⁶⁰, I. S. Bordulev³⁷, H. M. Borecka-Bielska¹¹⁰, G. Borissov⁹³, M. Borodin⁸¹, D. Bortoletto¹²⁸, D. Boscherini^{23b}, M. Bosman¹³, J. D. Bossio Sola^{36a}, K. Bouaouda^{35a}, N. Bouchhar¹⁶⁵, J. Boudreau¹³¹, E. V. Bouhova-Thacker⁹³, D. Boumediene⁴⁰, R. Bouquet^{58a,58b}, A. Boveia¹²¹, J. Boyd^{36a}, D. Boye²⁹, I. R. Boyko³⁸, L. Bozianu⁵⁷, J. Bracinik²⁰, N. Brahimi⁴, G. Brandt¹⁷³, O. Brandt³²,

F. Braren⁴⁸, B. Brau¹⁰⁵, J. E. Brau¹²⁵, R. Brenner¹⁷¹, L. Brenner¹¹⁶, R. Brenner¹⁶³, S. Bressler¹⁷¹, D. Britton⁶⁰, D. Britzger¹¹², I. Brock²⁴, R. Brock¹⁰⁹, G. Brooijmans⁴¹, E. Brost²⁹, L. M. Brown¹⁶⁷, L. E. Bruce⁶², T. L. Bruckler¹²⁸, P. A. Bruckman de Renstrom⁸⁸, B. Brüers⁴⁸, A. Bruni^{23b}, G. Bruni^{23b}, M. Bruschi^{23b}, N. Bruscino^{76a,76b}, L. Bryant³⁹, T. Buanes¹⁶, Q. Buat¹⁴¹, D. Buchin¹¹², A. G. Buckley⁶⁰, O. Bulekov³⁷, B. A. Bullard¹⁴⁶, S. Burdin⁹⁴, C. D. Burgard⁴⁹, A. M. Burger^{36a}, B. Burghgrave⁸, O. Burlayenko⁵⁵, J. T. P. Burr³², C. D. Burton¹¹, J. C. Burzynski¹⁴⁵, E. L. Busch⁴¹, V. Büscher¹⁰², P. J. Bussey⁶⁰, J. M. Butler²⁵, C. M. Buttar⁶⁰, J. M. Butterworth⁹⁸, W. Buttinger¹³⁶, C. J. Buxo Vazquez¹⁰⁹, A. R. Buzykaev³⁷, S. Cabrera Urbán¹⁶⁵, L. Cadamuro⁶⁷, D. Caforio⁵⁹, H. Cai¹³¹, Y. Cai^{14a,14e}, Y. Cai^{14c}, V. M. M. Cairo^{36a}, O. Kaker^{3a}, N. Calace^{36a}, P. Calafiura^{17a}, G. Calderini¹²⁹, P. Calfayan⁶⁹, G. Callea⁶⁰, L. P. Caloba^{84b}, D. Calvet⁴⁰, S. Calvet⁴⁰, M. Calvetti^{75a,75b}, R. Camacho Toro¹²⁹, S. Camarda^{36a}, D. Camarero Munoz²⁶, P. Camarri^{77a,77b}, M. T. Camerlingo^{73a,73b}, D. Cameron^{36a}, C. Camincher¹⁶⁷, M. Campanelli⁹⁸, A. Camplani⁴², V. Canale^{73a,73b}, L. Canali^{36b}, A. C. Canbay^{3a}, E. Canonero⁹⁷, J. Cantero¹⁶⁵, Y. Cao¹⁶⁴, F. Capocasa²⁶, M. Capua^{43a,43b}, C. Caramarcu²⁹, A. Carbone^{72a,72b}, R. Cardarelli^{77a}, J. C. J. Cardenas⁸, G. Carducci^{43a,43b}, T. Carli^{36a}, G. Carlino^{73a}, J. I. Carlotto¹³, B. T. Carlson^{131,q}, E. M. Carlson^{158a,167}, J. Carmignani⁹⁴, L. Carminati^{72a,72b}, A. Carnelli¹³⁷, M. Carnesale^{76a,76b}, S. Caron¹¹⁵, E. Carquin^{139f}, S. Carrá^{72a}, G. Carratta^{23a,23b}, A. M. Carroll¹²⁵, T. M. Carter⁵², M. P. Casado^{13,i}, M. Caspar⁴⁸, F. L. Castillo⁴, L. Castillo Garcia¹³, V. Castillo Gimenez¹⁶⁵, N. F. Castro^{132a,132c}, A. Catinaccio^{36a}, J. R. Catmore¹²⁷, T. Cavaliere⁴, V. Cavaliere²⁹, N. Cavalli^{23a,23b}, Y. C. Cekmecelioglu⁴⁸, E. Celebi^{21a}, S. Cella^{36a}, F. Celli¹²⁸, M. S. Centonze^{71a,71b}, V. Cepaitis⁵⁷, K. Cerny¹²⁴, A. S. Cerqueira^{84a}, A. Cerri¹⁴⁹, L. Cerrito^{77a,77b}, F. Cerutti^{17a}, B. Cervato¹⁴⁴, A. Cervelli^{23b}, G. Cesarini⁵⁴, S. A. Cetin⁸³, D. Chakraborty¹¹⁷, J. Chan^{17a}, W. Y. Chan¹⁵⁶, J. D. Chapman³², E. Chapon¹³⁷, B. Chargeishvili^{152b}, D. G. Charlton²⁰, M. Chatterjee¹⁹, C. C. Chau³⁴, C. Chauhan¹³⁵, Y. Che^{14c}, S. Chekanov⁶, S. V. Chekulaev^{158a}, G. A. Chelkov^{38,a}, S. Chelsky¹⁴⁵, A. Chen¹⁰⁸, B. Chen¹⁵⁴, B. Chen¹⁶⁷, H. Chen^{14c}, H. Chen²⁹, J. Chen^{63c}, J. Chen¹⁴⁵, M. Chen¹²⁸, S. Chen¹⁵⁶, S. J. Chen^{14c}, X. Chen^{63c,137}, X. Chen^{14b,ae}, Y. Chen^{63a}, C. L. Cheng¹⁷², H. C. Cheng^{65a}, S. Cheong¹⁴⁶, A. Cheplakov³⁸, E. Cheremushkina⁴⁸, E. Cherepanova¹¹⁶, R. Cherkaoui El Moursli^{35e}, E. Cheu⁷, K. Cheung⁶⁶, L. Chevalier¹³⁷, V. Chiarella⁵⁴, G. Chiarelli^{75a}, N. Chiedde¹⁰⁴, G. Chiodini^{71a}, A. S. Chisholm²⁰, A. Chitan^{27b}, M. Chitishvili¹⁶⁵, M. V. Chizhov^{38,r}, K. Choi¹¹, T. Chou²⁹, Y. Chou¹⁴¹, E. Y. S. Chow¹¹⁵, D. Christidis^{36a}, K. L. Chu¹⁷¹, M. C. Chu^{65a}, X. Chu^{14a,14e}, J. Chudoba¹³³, J. J. Chwastowski⁸⁸, D. Cieri¹¹², K. M. Ciesla^{87a}, V. Cindro⁹⁵, A. Ciocio^{17a}, F. Ciotto^{73a,73b}, Z. H. Citron¹⁷¹, M. Citterio^{72a}, D. A. Ciubotaru^{27b}, A. Clark⁵⁷, P. J. Clark⁵², C. Clarry¹⁵⁷, J. M. Clavijo Columbie⁴⁸, S. E. Clawson⁴⁸, C. Clement^{47a,47b}, J. Clercx⁴⁸, Y. Coadou¹⁰⁴, M. Cobal^{70a,70c}, A. Coccaro^{58b}, R. F. Coelho Barrue^{132a}, R. Coelho Lopes De Sa¹⁰⁵, S. Coelli^{72a}, B. Cole⁴¹, J. Collot⁶¹, P. Conde Muño^{132a,132g}, M. P. Connell^{33c}, S. H. Connell^{33c}, E. I. Conroy¹²⁸, F. Conventi^{73a,ag}, H. G. Cooke²⁰, A. M. Cooper-Sarkar¹²⁸, F. A. Corchia^{23a,23b}, A. Cordeiro Oudot Choi¹²⁹, L. D. Corpe⁴⁰, M. Corradi^{76a,76b}, F. Corriveau^{106,x}, A. Cortes-Gonzalez¹⁸, M. J. Costa¹⁶⁵, F. Costanza⁴, D. Costanzo¹⁴², B. M. Cote¹²¹, J. Couthures⁴, G. Cowan⁹⁷, K. Cranmer¹⁷², D. Cremonini^{23a,23b}, S. Crépe-Renaudin⁶¹, F. Crescioli¹²⁹, M. Cristinziani¹⁴⁴, M. Cristoforetti^{79a,79b}, V. Croft¹¹⁶, J. E. Crosby¹²³, G. Crosetti^{43a,43b}, R. Cruz Josa⁵³, A. Cueto¹⁰¹, Z. Cui⁷, W. R. Cunningham⁶⁰, F. Curcio¹⁶⁵, J. R. Curran⁵², P. Czodrowski^{36a}, M. M. Czurylo^{36a}, M. J. Da Cunha Sargedas De Sousa^{58a,58b}, J. V. Da Fonseca Pinto^{84b}, C. Da Via¹⁰³, W. Dabrowski^{87a}, T. Dado⁴⁹, S. Dahbi¹⁵¹, T. Dai¹⁰⁸, D. Dal Santo¹⁹, C. Dallapiccola¹⁰⁵, M. Dam⁴², G. D'amen²⁹, V. D'Amico¹¹¹, J. Damp¹⁰², J. R. Dandoy³⁴, D. Dannheim^{36a}, M. Danninger¹⁴⁵, V. Dao^{36a}, G. Darbo^{58b}, S. J. Das^{29,ah}, F. Dattola⁴⁸, S. D'Auria^{72a,72b}, A. D'Avanzo^{73a,73b}, C. David^{33a}, T. Davidek¹³⁵, I. Dawson⁹⁶, H. A. Day-hall¹³⁴, K. De⁸, R. De Asmundis^{73a}, N. De Biase⁴⁸, S. De Castro^{23a,23b}, N. De Groot¹¹⁵, P. de Jong¹¹⁶, H. De la Torre¹¹⁷, A. De Maria^{14c}, A. De Salvo^{76a}, U. De Sanctis^{77a,77b}, F. De Santis^{71a,71b}, A. De Santo¹⁴⁹, A. De Silva^{158a}, J. B. De Vivie De Regie⁶¹, D. V. Dedovich³⁸, J. Degens⁹⁴

S. Díez Cornell⁴⁸ , C. Díez Pardos¹⁴⁴ , C. Dimitriadis^{24,163} , A. Dimitrievska²⁰ , J. Dingfelder²⁴ , I.-M. Dinu^{27b} , S. J. Dittmeier^{64b} , F. Dittus^{36a} , M. Divisek¹³⁵ , F. Djama¹⁰⁴ , T. Djobava^{152b} , C. Doglioni^{100,103} , A. Dohnalova^{28a} , J. Dolejsi¹³⁵ , Z. Dolezal¹³⁵ , K. M. Dona³⁹ , M. Donadelli^{84c} , B. Dong¹⁰⁹ , J. Donini⁴⁰ , A. D'Onofrio^{73a,73b} , M. D'Onofrio⁹⁴ , J. Dopke¹³⁶ , A. Doria^{73a} , N. Dos Santos Fernandes^{132a} , P. Dougan¹⁰³ , M. T. Dova⁹² , A. T. Doyle⁶⁰ , M. A. Draguet¹²⁸ , E. Dreyer¹⁷¹ , I. Drivas-koulouris¹⁰ , M. Drnević¹¹⁹ , M. Drozdova⁵⁷ , D. Du^{63a} , T. A. du Pree¹¹⁶ , F. Dubinin³⁷ , M. Dubovsky^{28a} , E. Duchovni¹⁷¹ , G. Duckeck¹¹¹ , O. A. Ducu^{27b} , D. Duda⁵² , A. Dudarev^{36a} , E. R. Duden²⁶ , M. D'uffizi¹⁰³ , L. Duflot⁶⁷ , M. Dührssen^{36a} , I. Duminica^{27g} , A. E. Dumitriu^{27b} , M. Dunford^{64a} , S. Dungs⁴⁹ , K. Dunne^{47a,47b} , A. Duperrin¹⁰⁴ , H. Duran Yildiz^{3a} , M. Düren⁵⁹ , A. Durglishvili^{152b} , B. L. Dwyer¹¹⁷ , G. I. Dyckes^{17a} , M. Dyndal^{87a} , B. S. Dziedzic^{36a} , Z. O. Earnshaw¹⁴⁹ , G. H. Eberwein¹²⁸ , B. Eckerova^{28a} , S. Eggebrecht⁵⁶ , E. Egidio Purcino De Souza¹²⁹ , L. F. Ehrke⁵⁷ , G. Eigen¹⁶ , K. Einsweiler^{17a} , T. Ekelof¹⁶³ , P. A. Ekman¹⁰⁰ , S. El Farkh^{35b} , Y. El Ghazali^{35b} , H. El Jarrari^{36a} , A. El Moussaouy¹¹⁰ , V. Ellajosyula¹⁶³ , M. Ellert¹⁶³ , F. Ellinghaus¹⁷³ , N. Ellis^{36a} , J. Elmsheuser²⁹ , M. Elsayy^{118a} , M. Elsing^{36a} , D. Emelianov¹³⁶ , Y. Enari¹⁵⁶ , I. Ene^{17a} , S. Epari¹³ , P. A. Erland⁸⁸ , M. Errenst¹⁷³ , M. Escalier⁶⁷ , C. Escobar¹⁶⁵ , J. H. Esseiva^{17a} , E. Etzion¹⁵⁴ , G. Evans^{132a,132b} , H. Evans⁶⁹ , L. S. Evans⁹⁷ , A. Ezhilov³⁷ , S. Ezzarqtouni^{35a} , F. Fabbri^{23a,23b} , L. Fabbri^{23a,23b} , G. Facini⁹⁸ , V. Fadeyev¹³⁸ , R. M. Fakhrutdinov³⁷ , D. Fakoudis¹⁰² , S. Falciano^{76a} , L. F. Falda Ulhoa Coelho^{36a} , F. Fallavollita¹¹² , J. Faltova¹³⁵ , C. Fan¹⁶⁴ , Y. Fan^{14a} , Y. Fang^{14a,14c} , M. Fanti^{72a,72b} , M. Faraj^{70a,70b} , Z. Farazpay⁹⁹ , A. Farbin⁸ , A. Farilla^{78a} , T. Farooque¹⁰⁹ , S. M. Farrington⁵² , F. Fassi^{35e} , D. Fassouliotis⁹ , M. Fauci Giannelli^{77a,77b} , W. J. Fawcett³² , L. Fayard⁶⁷ , P. Federic¹³⁵ , P. Federicova¹³³ , O. L. Fedin^{37,a} , M. Feickert¹⁷² , L. Feligioni¹⁰⁴ , D. E. Fellers¹²⁵ , C. Feng^{63b} , M. Feng^{14b} , Z. Feng¹¹⁶ , M. J. Fenton¹⁶¹ , L. Ferencz⁴⁸ , R. A. M. Ferguson⁹³ , A. F. Fernández Casani¹⁶⁵ , F. Fernandez Galindo^{158a} , S. I. Fernandez Luengo^{139f} , P. Fernandez Martinez¹³ , M. J. V. Fernoux¹⁰⁴ , J. Ferrando⁹³ , A. Ferrari¹⁶³ , P. Ferrari^{115,116} , R. Ferrari^{74a} , D. Ferrere⁵⁷ , C. Ferretti¹⁰⁸ , F. Fiedler¹⁰² , P. Fiedler¹³⁴ , A. Filipčič⁹⁵ , E. K. Filmer¹ , F. Filthaut¹¹⁵ , M. C. N. Fiolhais^{132a,132c} , L. Fiorini¹⁶⁵ , W. C. Fisher¹⁰⁹ , T. Fitschen¹⁰³ , P. M. Fitzhugh¹³⁷ , I. Fleck¹⁴⁴ , P. Fleischmann¹⁰⁸ , T. Flick¹⁷³ , M. Flores^{33d,ac} , L. R. Flores Castillo^{65a} , L. Flores Sanz De Acedo^{36a} , F. M. Follega^{79a,79b} , N. Fomin¹⁶ , J. H. Foo¹⁵⁷ , A. Formica¹³⁷ , A. C. Forti¹⁰³ , E. Fortin^{36a} , A. W. Fortman^{17a} , M. G. Foti^{17a} , L. Fountas^{9,j} , D. Fournier⁶⁷ , H. Fox⁹³ , P. Francavilla^{75a,75b} , S. Francescato⁶² , S. Franchellucci⁵⁷ , M. Franchini^{23a,23b} , S. Franchino^{64a} , D. Francis^{36a} , L. Franco¹¹⁵ , V. Franco Lima^{36a} , L. Franconi⁴⁸ , M. Franklin⁶² , G. Frattari²⁶ , Y. Y. Frid¹⁵⁴ , J. Friend⁶⁰ , N. Fritzsche⁵⁰ , A. Froch⁵⁵ , D. Froidevaux^{36a} , J. A. Frost¹²⁸ , Y. Fu^{63a} , S. Fuenzalida Garrido^{139f} , M. Fujimoto¹⁰⁴ , J. Fulachier⁶¹ , K. Y. Fung^{65a} , E. Furtado De Simas Filho^{84c} , M. Furukawa¹⁵⁶ , J. Fuster¹⁶⁵ , A. Gabrielli^{23a,23b} , A. Gabrielli¹⁵⁷ , P. Gadow^{36a} , G. Gagliardi^{58a,58b} , L. G. Gagnon^{17a} , S. Gaid¹⁶² , S. Galantzan¹⁵⁴ , E. J. Gallas¹²⁸ , B. J. Gallop¹³⁶ , C. F. Gamboa²⁹ , K. K. Gan¹²¹ , S. Ganguly¹⁵⁶ , Y. Gao⁵² , F. M. Garay Walls^{139a,139b} , B. Garcia²⁹ , C. García¹⁶⁵ , A. Garcia Alonso¹¹⁶ , A. G. Garcia Caffaro¹⁷⁴ , C. Garcia Montoro¹⁶⁵ , J. E. García Navarro¹⁶⁵ , M. Garcia-Sciveres^{17a} , G. L. Gardner¹³⁰ , R. W. Gardner³⁹ , N. Garelli¹⁶⁰ , D. Garg⁸¹ , R. B. Garg^{146,m} , J. M. Gargan⁵² , C. A. Garner¹⁵⁷ , V. Garonne²⁹ , C. M. Garvey^{33a} , V. K. Gassmann¹⁶⁰ , G. Gaudio^{74a} , V. Gautam¹³ , P. Gauzzi^{76a,76b} , I. L. Gavrilenko³⁷ , A. Gavrilyuk³⁷ , C. Gay¹⁶⁶ , G. Gaycken⁴⁸ , E. N. Gazis¹⁰ , A. A. Geanta^{27b} , C. M. Gee¹³⁸ , A. Gekow¹²¹ , C. Gemme^{58b} , M. H. Genest⁶¹ , A. D. Gentry¹¹⁴ , S. George⁹⁷ , W. F. George²⁰ , T. Geralis⁴⁶ , P. Gessinger-Befurt^{36a} , M. E. Geyik¹⁷³ , M. Ghani¹⁶⁹ , K. Ghorbanian⁹⁶ , A. Ghosal¹⁴⁴ , A. Ghosh¹⁶¹ , A. Ghosh⁷ , B. Giacobbe^{23b} , S. Giagu^{76a,76b} , T. Giani¹¹⁶ , P. Giannetti^{75a} , A. Giannini^{63a} , S. M. Gibson⁹⁷ , M. Gignac¹³⁸ , D. T. Gil^{87b} , A. K. Gilbert^{87a} , B. J. Gilbert⁴¹ , D. Gillberg³⁴ , G. Gilles¹¹⁶ , L. Ginabat¹²⁹ , D. M. Gingrich^{2,af} , M. P. Giordani^{70a,70c} , P. F. Giraud¹³⁷ , G. Giugliarelli^{70a,70c} , D. Giugni^{72a} , F. Giuliani^{36a} , I. Gkialas^{9,j} , L. K. Gladilin³⁷ , C. Glasman¹⁰¹ , A. Glazov⁴⁸ , G. R. Gledhill¹²⁵ , G. Glemža⁴⁸ , M. Glisic¹²⁵ , I. Glushkov⁸ , I. Gnesi^{43b,f} , Y. Go²⁹ , M. Goblirsch-Kolb^{36a} , B. Gocke⁴⁹ , D. Godin¹¹⁰ , B. Gokturk^{21a} , S. Goldfarb¹⁰⁷

C. Grefe²⁴, I. M. Gregor⁴⁸, K. T. Greif¹⁶¹, P. Grenier¹⁴⁶, S. G. Grewe¹¹², M. Grigoryeva³⁷, A. A. Grillo¹³⁸, K. Grimm³¹, S. Grinstein^{13,1d}, J. -F. Grivaz⁶⁷, L. S. Groer¹⁵⁷, E. Gross¹⁷¹, J. Grosse-Knetter⁵⁶, J. C. Grundy¹²⁸, L. Guan¹⁰⁸, W. Guan²⁹, J. G. R. Guerrero Rojas¹⁶⁵, G. Guerrieri^{70a,70c}, F. Guescini¹¹², D. Guest¹⁸, R. Gugel¹⁰², J. A. M. Guhit¹⁰⁸, A. Guida¹⁸, E. Guilloton¹⁶⁹, S. Guindon^{36a}, F. Guo^{14a,14e}, J. Guo^{63c}, L. Guo⁴⁸, Y. Guo¹⁰⁸, R. Gupta¹³¹, S. Gurbuz²⁴, S. S. Gurdasani⁵⁵, S. Gurniak⁸, G. Gustavino^{36a}, M. Guth⁵⁷, P. Gutierrez¹²², L. F. Gutierrez Zagazeta¹³⁰, M. Gutsche⁵⁰, C. Gutschow⁹⁸, C. Gwenlan¹²⁸, C. B. Gwilliam⁹⁴, E. S. Haaland¹²⁷, A. Haas¹¹⁹, M. Habedank⁴⁸, C. Haber^{17a}, H. K. Hadavand⁸, A. Hade⁵⁰, S. Hadzic¹¹², A. I. Hagan⁹³, J. J. Hahn¹⁴⁴, E. H. Haines⁹⁸, M. Haleem¹⁶⁸, J. Haley¹²³, J. J. Hall¹⁴², G. D. Halleswell¹⁰⁴, L. Halser¹⁹, K. Hamano¹⁶⁷, M. Hamer²⁴, G. N. Hamity⁵², E. J. Hampshire⁹⁷, J. Han^{63b}, K. Han^{63a}, L. Han^{14c}, L. Han^{63a}, S. Han^{17a}, Y. F. Han¹⁵⁷, K. Hanagaki⁸⁵, M. Hance¹³⁸, D. A. Hangal⁴¹, H. Hanif¹⁴⁵, M. D. Hank¹³⁰, J. B. Hansen⁴², P. H. Hansen⁴², A. Hanushevsky¹⁴⁶, K. Hara¹⁵⁹, D. Harada⁵⁷, T. Harenberg¹⁷³, S. Harkusha³⁷, M. L. Harris¹⁰⁵, Y. T. Harris¹²⁸, J. Harrison¹³, N. M. Harrison¹²¹, P. F. Harrison¹⁶⁹, N. M. Hartman¹¹², N. M. Hartmann¹¹¹, T. Hartmann⁴⁸, R. Z. Hasan^{97,136}, Y. Hasegawa¹⁴³, S. Hassan¹⁶, R. Hauser¹⁰⁹, C. M. Hawkes²⁰, R. J. Hawkings^{36a}, Y. Hayashi¹⁵⁶, S. Hayashida¹¹³, D. Hayden¹⁰⁹, C. Hayes¹⁰⁸, R. L. Hayes¹¹⁶, C. P. Hays¹²⁸, J. M. Hays⁹⁶, H. S. Hayward⁹⁴, F. He^{63a}, M. He^{14a,14e}, Y. He¹⁴⁰, Y. He⁴⁸, Y. He⁹⁸, N. B. Heatley⁹⁶, V. Hedberg¹⁰⁰, A. L. Heggelund¹²⁷, N. D. Hehir^{96,*}, C. Heidegger⁵⁵, K. K. Heidegger⁵⁵, W. D. Heidorn⁸², J. Heilman³⁴, S. Heim⁴⁸, T. Heim^{17a}, J. G. Heinlein¹³⁰, J. J. Heinrich¹²⁵, L. Heinrich^{112,ad}, J. Hejbal¹³³, A. Held¹⁷², S. Hellesund¹⁶, C. M. Helling¹⁶⁶, S. Hellman^{47a,47b}, R. C. W. Henderson⁹³, L. Henkelmann³², A. M. Henriques Correia^{36a}, H. Herde¹⁰⁰, Y. Hernández Jiménez¹⁴⁸, L. M. Herrmann²⁴, T. Herrmann⁵⁰, G. Hertel⁵⁵, R. Hertenberger¹¹¹, L. Hervas^{36a}, M. E. Hespino¹⁰², N. P. Hessey^{158a}, M. Hidaoui^{35b}, E. Hill¹⁵⁷, S. J. Hillier²⁰, J. R. Hinds¹⁰⁹, F. Hinterkeuser²⁴, M. Hirose¹²⁶, S. Hirose¹⁵⁹, D. Hirschbuehl¹⁷³, T. G. Hitchings¹⁰³, B. Hiti⁹⁵, J. Hobbs¹⁴⁸, R. Hobincu^{27e}, N. Hod¹⁷¹, M. C. Hodgkinson¹⁴², B. H. Hodgkinson¹²⁸, A. Hoecker^{36a}, D. D. Hofer¹⁰⁸, J. Hofer⁴⁸, T. Holm²⁴, M. Holzbock¹¹², L. B. A. H. Hommels³², B. P. Honan¹⁰³, J. J. Hong⁶⁹, J. Hong^{63c}, T. M. Hong¹³¹, B. H. Hooberman¹⁶⁴, W. H. Hopkins⁶, Y. Horii¹¹³, S. Hou¹⁵¹, A. S. Howard⁹⁵, J. Howarth⁶⁰, J. Hoya⁶, M. Hrabovsky¹²⁴, A. Hrynevich⁴⁸, T. Hryn'ova⁴, P. J. Hsu⁶⁶, S. -C. Hsu¹⁴¹, T. Hsu⁶⁷, F. Hu³⁹, M. Hu^{17a}, Q. Hu^{63a}, S. Huang^{65b}, X. Huang^{14a,14e}, Y. Huang¹⁴², Y. Huang¹⁰², Y. Huang^{14a}, Z. Huang¹⁰³, Z. Hubacek¹³⁴, M. Huebner²⁴, F. Huegging²⁴, T. B. Huffman¹²⁸, C. A. Hugli⁴⁸, M. Huhtinen^{36a}, S. K. Huiberts¹⁶, R. Hulsken¹⁰⁶, N. Huseynov¹², J. Huston¹⁰⁹, J. Huth⁶², R. Hyneman¹⁴⁶, G. Iacobucci⁵⁷, G. Iakovidis²⁹, L. Iconomidou-Fayard⁶⁷, J. P. Iddon^{36a}, P. Iengo^{73a,73b}, R. Iguchi¹⁵⁶, T. Iizawa¹²⁸, Y. Ikegami⁸⁵, N. Ilic¹⁵⁷, H. Imam^{35a}, M. Ince Lezki⁵⁷, T. Ingebrechtsen Carlson^{47a,47b}, G. Introzzi^{74a,74b}, M. Iodice^{78a}, V. Ippolito^{76a,76b}, R. K. Irwin⁹⁴, M. Ishino¹⁵⁶, W. Islam¹⁷², C. Issever^{18,48}, S. Istin^{21a,aj}, H. Ito¹⁷⁰, H. Ito²⁹, R. Iuppa^{79a,79b}, A. Ivina¹⁷¹, J. M. Izen⁴⁵, V. Izzo^{73a}, P. Jacka¹³³, P. Jackson¹, C. S. Jagfeld¹¹¹, G. Jain^{158a}, P. Jain⁴⁸, K. Jakobs⁵⁵, T. Jakoubek¹⁷¹, J. Jamieson⁶⁰, M. Javurkova¹⁰⁵, L. Jeanty¹²⁵, J. Jejelava^{152a,aa}, P. Jenni^{55,g}, C. E. Jessiman³⁴, S. Jézéquel⁴, C. Jia^{63b}, J. Jia¹⁴⁸, X. Jia⁶², X. Jia^{14a,14e}, Z. Jia^{14c}, C. Jiang⁵², S. Jiggins⁴⁸, J. Jimenez Pena¹³, S. Jin^{14c}, A. Jinaru^{27b}, O. Jinnouchi¹⁴⁰, P. Johansson¹⁴², K. A. Johns⁷, J. W. Johnson¹³⁸, D. M. Jones¹⁴⁹, E. Jones⁴⁸, P. Jones³², R. W. L. Jones⁹³, T. J. Jones⁹⁴, H. L. Joos^{36a,56}, D. A. Jordan³⁹, R. Joshi¹²¹, J. Jovicevic¹⁵, X. Ju^{17a}, J. J. Junggeburth¹⁰⁵, T. Junkermann^{64a}, A. Juste Rozas^{13,t}, M. K. Juzek⁸⁸, S. Kabana^{139e}, A. Kaczmarzka⁸⁸, M. Kado¹¹², H. Kagan¹²¹, M. Kagan¹⁴⁶, A. Kahn¹³⁰, C. Kahra¹⁰², T. Kaji¹⁵⁶, E. Kajomovitz¹⁵³, N. Kakati¹⁷¹, I. Kalaitzidou⁵⁵, C. W. Kalderon²⁹, S. Kandasamy²⁹, N. J. Kang¹³⁸, D. Kar^{33g}, K. Karava¹²⁸, E. Karavakis²⁹, M. J. Kareem^{158b}, E. Karentzos⁵⁵, O. Karkout¹¹⁶, S. N. Karpov³⁸, Z. M. Karpova³⁸, V. Kartvelishvili⁹³, A. N. Karyukhin³⁷, E. Kasimi¹⁵⁵, J. Katzy⁴⁸, S. Kaur³⁴, K. Kawade¹⁴³, M. P. Kawale¹²², C. Kawamoto⁸⁹, T. Kawamoto^{63a}, E. F. Kay^{36a}, F. I. Kaya¹⁶⁰, S. Kazakos¹⁰⁹, V. F. Kazanin³⁷, Y. Ke¹⁴⁸, J. M. Keaveney^{33a}, R. Keeler¹⁶⁷, G. V. Kehris⁶², J. S. Keller³⁴, A. S. Kelly⁹⁸, J. J. Kempster¹⁴⁹, P. D. Kennedy¹⁰², O. Kepka¹³³, B. P. Kerridge¹³⁶, S. Kersten¹⁷³, B. P. Kerševan⁹⁵, L. Keszeghova^{28a}, S. Ketabchi Haghighat¹⁵⁷, R. A. Khan¹³¹, A. Khanov¹²³, A. G. Kharlamov³⁷, T. Kharlamova³⁷, E. E. Khoda¹⁴¹, M. Kholodenko³⁷, T. J. Khoo¹⁸, G. Khoraiuli¹⁶⁸, J. Khubua^{152b,*}, Y. A. R. Khwairam⁶⁷, B. Kibirige^{33g}, D. W. Kim^{47a,47b}, Y. K. Kim³⁹, N. Kimura⁹⁸, M. K. Kingston⁵⁶, A. Kirchhoff⁵⁶, C. Kirfel²⁴, F. Kirfel²⁴, J. Kirk¹³⁶, A. E. Kiryunin¹¹², C. Kitsaki¹⁰, O. Kivernyk²⁴, M. Klassen¹⁶⁰, C. Klein³⁴, L. Klein¹⁶⁸, M. H. Klein⁴⁴, S. B. Klein⁵⁷, U. Klein⁹⁴, P. Klimek^{36a}, A. Klimentov²⁹, T. Klioutchnikova^{36a}, P. Kluit¹¹⁶, S. Kluth¹¹², E. Kneringer⁸⁰, T. M. Knight¹⁵⁷, A. Knue⁴⁹, R. Kobayashi⁸⁹, D. Kobylanski¹⁷¹, S. F. Koch¹²⁸, M. Kocian¹⁴⁶, P. Kodyš¹³⁵, D. M. Koeck¹²⁵, P. T. Koenig²⁴, T. Koffas³⁴,

O. Kolay⁵⁰, I. Koletsou⁴, T. Komarek¹²⁴, V. Kondratenko^{158a}, K. Köneke⁵⁵, A. X. Y. Kong¹, T. Kono¹²⁰, N. Konstantinidis⁹⁸, P. Kontaxakis⁵⁷, B. Konya¹⁰⁰, R. Kopeliansky⁴¹, S. Koperny^{87a}, T. Korchuganova¹³¹, K. Korcyl⁸⁸, K. Kordas^{155e}, A. Korn⁹⁸, S. Korn⁵⁶, I. Korolkov¹³, N. Korotkova³⁷, B. Kortman¹¹⁶, O. Kortner¹¹², S. Kortner¹¹², W. H. Kostecka¹¹⁷, V. V. Kostyukhin¹⁴⁴, A. Kotsokechagia¹³⁷, A. Kotwal⁵¹, A. Koulouris^{36a}, A. Kourkouveli-Charalampidi^{74a,74b}, C. Kourkouvelis⁹, E. Kourlitis^{112,ad}, O. Kovanda¹²⁵, R. Kowalewski¹⁶⁷, W. Kozanecki¹³⁷, A. S. Kozhin³⁷, V. A. Kramarenko³⁷, G. Kramberger⁹⁵, P. Kramer¹⁰², M. W. Krasny¹²⁹, A. Krasznahorkay^{36a}, J. W. Kraus¹⁷³, J. A. Kremer⁴⁸, T. Kresse⁵⁰, J. Kretschmar⁹⁴, K. Kreul¹⁸, P. Krieger¹⁵⁷, S. Krishnamurthy¹⁰⁵, M. Krivos¹³⁵, K. Krizka²⁰, K. Kroeninger⁴⁹, H. Kroha¹¹², J. Kroll¹³³, J. Kroll¹³⁰, K. S. Krowpman¹⁰⁹, U. Kruchonak³⁸, H. Krüger²⁴, N. Krumnack⁸², M. C. Kruse⁵¹, O. Kuchinskaia³⁷, S. Kuday^{3a}, S. Kuehn^{36a}, R. Kuesters⁵⁵, T. Kuhl⁴⁸, V. Kukhtin³⁸, Y. Kulchitsky^{37,a}, S. Kuleshov^{139b,139d}, M. Kumar^{33g}, N. Kumari⁴⁸, P. Kumari^{158b}, A. Kupco¹³³, T. Kupfer⁴⁹, A. Kupich³⁷, O. Kuprash⁵⁵, H. Kurashige⁸⁶, L. L. Kurchaninov^{158a}, O. Kurdysh⁶⁷, Y. A. Kurochkin³⁷, A. Kurova³⁷, E. S. Kuwertz^{36b}, M. Kuze¹⁴⁰, A. K. Kvam¹⁰⁵, J. Kvita¹²⁴, T. Kwan¹⁰⁶, N. G. Kyriacou¹⁰⁸, L. A. O. Laatu¹⁰⁴, C. Lacasta¹⁶⁵, F. Lacava^{76a,76b}, H. Lacker¹⁸, D. Lacour¹²⁹, N. N. Lad⁹⁸, E. Ladygin³⁸, A. Lafarge⁴⁰, B. Laforge¹²⁹, T. Lagouri¹⁷⁴, F. Z. Lahbabi^{35a}, S. Lai⁵⁶, F. Lambert⁶¹, J. E. Lambert¹⁶⁷, S. Lammers⁶⁹, W. Lampl⁷, C. Lampoudis^{155e}, G. Lamprinoudis¹⁰², A. N. Lancaster¹¹⁷, E. Lançon²⁹, U. Landgraf⁵⁵, M. P. J. Landon⁹⁶, V. S. Lang⁵⁵, O. K. B. Langrekken¹²⁷, A. J. Lankford¹⁶¹, F. Lanni^{36a}, K. Lantzsch²⁴, A. Lanza^{74a}, A. Lapertosa^{58a,58b}, J. F. Laporte¹³⁷, T. Lari^{72a}, F. Lasagni Manghi^{23b}, M. Lassnig^{36a}, V. Latonova¹³³, A. Laudrain¹⁰², P. Laurens¹⁰⁹, A. Laurier¹⁵³, S. D. Lawlor¹⁴², Z. Lawrence¹⁰³, R. Lazaridou¹⁶⁹, M. Lazzaroni^{72a,72b}, B. Le¹⁰³, E. M. Le Boulicaut⁵¹, F. M. Le Flour Chollet⁴, L. T. Le Pottier^{17a}, B. Leban^{23a,23b}, A. Lebedev⁸², M. LeBlanc¹⁰³, F. Ledroit-Guillon⁶¹, C. J. Lee¹⁴⁸, S. C. Lee¹⁵¹, S. Lee^{47a,47b}, T. F. Lee⁹⁴, L. L. Leeuw^{33c}, H. P. Lefebvre⁹⁷, M. Lefebvre¹⁶⁷, C. Leggett^{17a}, G. Lehmann Miotto^{36a}, M. Leigh⁵⁷, W. A. Leight¹⁰⁵, W. Leinonen¹¹⁵, A. Leisos^{155s}, M. A. L. Leite^{84c}, C. E. Leitgeb¹⁸, R. Leitner¹³⁵, K. J. C. Leney⁴⁴, T. Lenz²⁴, S. Leone^{75a}, C. Leonidopoulos⁵², A. Leopold¹⁴⁷, C. Leroy¹¹⁰, R. Les¹⁰⁹, C. G. Lester³², M. Levchenko³⁷, J. Levêque⁴, L. J. Levinson¹⁷¹, G. Levriani^{23a,23b}, M. P. Lewicki⁸⁸, C. Lewis¹⁴¹, D. J. Lewis⁴, A. Li⁵, B. Li^{63b}, C. Li^{63a}, C-Q. Li¹¹², H. Li^{63a}, H. Li^{63b}, H. Li^{14c}, H. Li^{14b}, H. Li^{63b}, J. Li^{63c}, K. Li¹⁴¹, L. Li^{63c}, M. Li^{14a,14e}, S. Li^{14a,14e}, S. Li^{63c,63d}, T. Li⁵, X. Li¹⁰⁶, Z. Li¹²⁸, Z. Li¹⁵⁶, Z. Li^{14a,14e}, S. Liang^{14a,14e}, Z. Liang^{14a}, M. Liberatore¹³⁷, B. Liberti^{77a}, K. Lie^{65c}, J. Lieber Marin^{84c}, H. Lien⁶⁹, F. Lin⁸, K. Lin¹⁰⁹, R. E. Lindley⁷, J. H. Lindon², E. Lipeles¹³⁰, A. Lipniacka¹⁶, A. Lister¹⁶⁶, J. D. Little⁴, B. Liu^{14a}, B. X. Liu^{14d}, D. Liu^{63c,63d}, E. H. L. Liu²⁰, J. B. Liu^{63a}, J. K. K. Liu³², J. L. Liu²⁹, K. Liu^{63d}, K. Liu^{63c,63d}, M. Liu^{63a}, M. Y. Liu^{63a}, P. Liu^{14a}, Q. Liu^{63c,63d,141}, X. Liu^{63a}, X. Liu^{63b}, X. Liu^{158a}, Y. Liu^{14d,14e}, Y. L. Liu^{63b}, Y. W. Liu^{63a}, J. Llorente Merino¹⁴⁵, S. L. Lloyd⁹⁶, E. M. Lobodzinska⁴⁸, P. Loch⁷, T. Lohse¹⁸, K. Lohwasser¹⁴², E. Loiacono⁴⁸, M. Lokajicek^{133,*}, J. D. Lomas²⁰, J. D. Long¹⁶⁴, I. Longarini¹⁶¹, L. Longo^{71a,71b}, R. Longo¹⁶⁴, I. Lopez Paz⁶⁸, A. Lopez Solis⁴⁸, N. Lorenzo Martinez⁴, A. M. Lory¹¹¹, G. Löschecke Centeno¹⁴⁹, O. Loseva³⁷, X. Lou^{47a,47b}, X. Lou^{14a,14e}, A. Lounis⁶⁷, P. A. Love⁹³, G. Lu^{14a,14e}, M. Lu⁶⁷, S. Lu¹³⁰, Y. J. Lu⁶⁶, H. J. Lubatti¹⁴¹, F. Luchetti⁸, C. Luci^{76a,76b}, F. L. Lucio Alves^{14c}, F. Luehring⁶⁹, I. Luise¹⁴⁸, O. Lukianchuk⁶⁷, O. Lundberg¹⁴⁷, B. Lund-Jensen^{147,*}, N. A. Luongo⁶, M. S. Lutz^{36a}, A. B. Lux²⁵, D. Lynn²⁹, R. Lysak¹³³, E. Lytken¹⁰⁰, V. Lyubushkin³⁸, T. Lyubushkina³⁸, M. M. Lyukova¹⁴⁸, M. Firdaus M. Soberi⁵², H. Ma²⁹, K. Ma^{63a}, L. L. Ma^{63b}, W. Ma^{63a}, Y. Ma¹²³, G. Maccarrone⁵⁴, J. C. MacDonald¹⁰², P. C. Machado De Abreu Farias^{84c}, R. Madar⁴⁰, T. Madula⁹⁸, J. Maeda⁸⁶, T. Maeno²⁹, M. Maeno Kataoka⁸, H. Maguire¹⁴², V. Maiboroda¹³⁷, A. Maio^{132a,132b,132d}, K. Maj^{87a}, O. Majersky⁴⁸, S. Majewski¹²⁵, N. Makovec⁶⁷, V. Maksimovic¹⁵, B. Malaescu¹²⁹, Pa. Malecki⁸⁸, V. P. Maleev³⁷, F. Malek^{61,n}, M. Mali⁹⁵, D. Malito⁹⁷, U. Mallik^{81,*}, S. Maltezos¹⁰, S. Malyukov³⁸, J. Mamuzic¹³, G. Mancini⁵⁴, M. N. Mancini²⁶, G. Manco^{74a,74b}, J. P. Mandalia⁹⁶, I. Mandić⁹⁵, L. Manhaes de Andrade Filho^{84a}, I. M. Maniatis¹⁷¹, J. Manjarres Ramos⁹¹, D. C. Mankad¹⁷¹, A. Mann¹¹¹, S. Manzoni^{36a}, L. Mao^{63c}, X. Mapekula^{33c}, A. Marantis^{155s}, G. Marchiori⁵, M. Marcisovsky¹³³, C. Marcon^{72a}, M. Marinescu²⁰, S. Marium⁴⁸, M. Marjanovic¹²², A. Markhoos⁵⁵, M. Markovitch⁶⁷, E. J. Marshall⁹³, Z. Marshall^{17a}, S. Marti-Garcia¹⁶⁵, T. A. Martin¹³⁶, V. J. Martin⁵², B. Martin dit Latour¹⁶, L. Martinelli^{76a,76b}, M. Martinez^{13,t}, P. Martinez Agullo¹⁶⁵, V. I. Martinez Outschoorn¹⁰⁵, P. Martinez Suarez¹³, S. Martin-Haugh¹³⁶, G. Martinovicova¹³⁵, V. S. Martoiu^{27b}, A. C. Martyniuk⁹⁸, A. Marzin^{36a}, D. Mascione^{79a,79b}, L. Masetti¹⁰², T. Mashimo¹⁵⁶, J. Masik¹⁰³, A. L. Maslennikov³⁷, P. Massarotti^{73a,73b}, P. Mastrandrea^{75a,75b}, A. Mastroberardino^{43a,43b}, T. Masubuchi¹⁵⁶, T. Mathisen¹⁶³, J. Matousek¹³⁵

N. Matsuzawa¹⁵⁶, J. Maurer^{27b}, A. J. Maury⁶⁷, B. Maček⁹⁵, D. A. Maximov³⁷, A. E. May¹⁰³, R. Mazini¹⁵¹, I. Maznas¹¹⁷, M. Mazza¹⁰⁹, S. M. Mazza¹³⁸, E. Mazzeo^{72a,72b}, C. Mc Ginn²⁹, J. P. Mc Gowan¹⁶⁷, S. P. Mc Kee¹⁰⁸, C. C. McCracken¹⁶⁶, E. F. McDonald¹⁰⁷, A. E. McDougall¹¹⁶, J. A. Mcfayden¹⁴⁹, R. P. McGovern¹³⁰, G. Mchedlidze^{152b}, R. P. Mckenzie^{33g}, T. C. Mclachlan⁴⁸, D. J. McLaughlin⁹⁸, S. J. McMahon¹³⁶, C. M. Mcpartland⁹⁴, R. A. McPherson^{167,x}, S. Mehlhase¹¹¹, A. Mehta⁹⁴, D. Melini¹⁶⁵, B. R. Mellado Garcia^{33g}, A. H. Melo⁵⁶, F. Meloni⁴⁸, A. M. Mendes Jacques Da Costa¹⁰³, H. Y. Meng¹⁵⁷, L. Meng⁹³, S. Menke¹¹², M. Mentink^{36a}, E. Meoni^{43a,43b}, G. Mercado¹¹⁷, S. Merianos¹⁵⁵, C. Merlassino^{70a,70c}, L. Merola^{73a,73b}, C. Meroni^{72a,72b}, J. Metcalfe⁶, A. S. Mete⁶, E. Meuser¹⁰², C. Meyer⁶⁹, J.-P. Meyer¹³⁷, R. P. Middleton¹³⁶, L. Mijovic⁵², G. Mikenberg¹⁷¹, M. Mikestikova¹³³, M. Mikuž⁹⁵, H. Mildner¹⁰², A. Milic^{36a}, D. W. Miller³⁹, E. H. Miller¹⁴⁶, L. S. Miller³⁴, A. Milov¹⁷¹, D. A. Milstead^{47a,47b}, T. Min^{14c}, A. A. Minaenko³⁷, I. A. Minashvili^{152b}, L. Mince⁶⁰, A. I. Mincer¹¹⁹, B. Mindur^{87a}, M. Mineev³⁸, Y. Mino⁸⁹, L. M. Mir¹³, M. Miralles Lopez⁶⁰, M. Mironova^{17a}, S. Misawa²⁹, A. Mishima¹⁵⁶, M. C. Missio¹¹⁵, A. Mitra¹⁶⁹, V. A. Mitsou¹⁶⁵, Y. Mitsumori¹¹³, O. Miu¹⁵⁷, P. S. Miyagawa⁹⁶, T. Mkrtchyan^{64a}, M. Mlinarevic⁹⁸, T. Mlinarevic⁹⁸, M. Mlynarikova^{36a}, S. Mobius¹⁹, P. Mogg¹¹¹, M. H. Mohamed Farook¹¹⁴, A. F. Mohammed^{14a,14c}, S. Mohapatra⁴¹, G. Mokgatitswane^{33g}, L. Moleri¹⁷¹, B. Mondal¹⁴⁴, S. Mondal¹³⁴, K. Mönig⁴⁸, E. Monnier¹⁰⁴, L. Monsonis Romero¹⁶⁵, J. Montejo Berlingen¹³, M. Montella¹²¹, F. Montecelli⁹², F. Monticelli⁹², S. Monzani^{70a,70c}, N. Morange⁶⁷, A. L. Moreira De Carvalho⁴⁸, M. Moreno Llacer¹⁶⁵, C. Moreno Martinez⁵⁷, P. Morettini^{58b}, B. Morgan¹⁶⁹, S. Morgenstern^{36a}, M. Morii⁶², M. Morinaga¹⁵⁶, F. Morodei^{76a,76b}, L. Morvaj^{36a}, P. Moschovakos^{36a}, B. Moser^{36a}, M. Mosidze^{152b}, T. Moskalets⁵⁵, P. Moskvitina¹¹⁵, J. Moss^{31,k}, P. Moszkowicz^{87a}, A. Moussa^{35d}, E. J. W. Moyse¹⁰⁵, O. Mtintsilana^{33g}, S. Muanza¹⁰⁴, J. Mueller¹³¹, D. Muenstermann⁹³, R. Müller¹⁹, G. A. Mullier¹⁶³, A. J. Mullin³², J. J. Mullin¹³⁰, D. P. Mungo¹⁵⁷, D. Munoz Perez¹⁶⁵, F. J. Munoz Sanchez¹⁰³, M. Murin¹⁰³, D. T. Murnane^{17a}, W. J. Murray^{136,169}, H. Musheghyan⁵⁶, M. Muškinja⁹⁵, C. Mwewa²⁹, A. G. Myagkov^{37,a}, A. J. Myers⁸, G. Myers¹⁰⁸, M. Myska¹³⁴, B. P. Nachman^{17a}, O. Nackenhorst⁴⁹, K. Nagai¹²⁸, K. Nagano⁸⁵, J. L. Nagle^{29,ah}, E. Nagy¹⁰⁴, A. M. Nairz^{36a}, Y. Nakahama⁸⁵, K. Nakamura⁸⁵, K. Nakkali⁵, H. Nanjo¹²⁶, E. A. Narayanan¹¹⁴, I. Naryshkin³⁷, L. Nasella^{72a,72b}, M. Naseri³⁴, S. Nasri^{118b}, C. Nass²⁴, G. Navarro^{22a}, J. Navarro-Gonzalez¹⁶⁵, R. Nayak¹⁵⁴, A. Nayaz¹⁸, P. Y. Nechaeva³⁷, S. Nechaeva^{23a,23b}, F. Nechansky⁴⁸, L. Nedic¹²⁸, T. J. Neep²⁰, A. Negri^{74a,74b}, M. Negrini^{23b}, C. Nellist¹¹⁶, C. Nelson¹⁰⁶, K. Nelson¹⁰⁸, S. Nemecek¹³³, M. Nessi^{36a,h}, M. S. Neubauer¹⁶⁴, F. Neuhaus¹⁰², J. Neundorff⁴⁸, P. R. Newman²⁰, C. W. Ng¹³¹, Y. W. Y. Ng⁴⁸, B. Ngair^{118a}, H. D. N. Nguyen¹¹⁰, R. B. Nickerson¹²⁸, R. Nicolaidou¹³⁷, J. Nielsen¹³⁸, M. Niemeyer⁵⁶, J. Niermann⁵⁶, N. Nikiforou^{36a}, V. Nikolaenko^{37,a}, I. Nikolic-Audit¹²⁹, K. Nikolopoulos²⁰, P. Nilsson²⁹, I. Ninca⁴⁸, G. Ninio¹⁵⁴, A. Nisati^{76a}, N. Nishu², R. Nisius¹¹², J.-E. Nitschke⁵⁰, E. K. Nkadiemeng^{33g}, T. Nobe¹⁵⁶, T. Nommensen¹⁵⁰, M. B. Norfolk¹⁴², R. R. B. Norisam⁹⁸, B. J. Norman³⁴, M. Noury^{35a}, J. Novak⁹⁵, T. Novak⁹⁵, L. Novotny¹³⁴, R. Novotny¹¹⁴, M. Nowak²⁹, L. Nozka¹²⁴, K. Ntekas¹⁶¹, N. M. J. Nunes De Moura Junior^{84b}, J. Ocariz¹²⁹, A. Ochi⁸⁶, I. Ochoa^{132a}, J. Odier⁶¹, S. Oerdek^{48,u}, J. T. Offermann³⁹, A. Ogrodnik¹³⁵, A. Oh¹⁰³, C. C. Ohm¹⁴⁷, H. Oide⁸⁵, R. Oishi¹⁵⁶, M. L. Ojeda⁴⁸, Y. Okumura¹⁵⁶, L. F. Oleiro Seabra^{132a}, S. A. Olivares Pino^{139d}, G. Oliveira Correa¹³, D. Oliveira Damazio²⁹, D. Oliveira Goncalves^{84a}, J. L. Oliver¹⁶¹, Ö. O. Öncel⁵⁵, A. P. O'Neill¹⁹, A. Onofre^{132a,132c}, P. U. E. Onyisi¹¹, M. J. Oreglia³⁹, G. E. Orellana⁹², D. Orestano^{78a,78b}, N. Orlando¹³, R. S. Orr¹⁵⁷, V. O'Shea⁶⁰, L. M. Osojnak¹³⁰, R. Ospanov^{63a}, G. Otero y Garzon³⁰, H. Otono⁹⁰, P. S. Ott^{64a}, G. J. Ottino^{17a}, M. Ouchrif^{35d}, F. Ould-Saada¹²⁷, T. Ovsianikov¹⁴¹, M. Owen⁶⁰, R. E. Owen¹³⁶, V. E. Ozcan^{21a}, F. Ozturk⁸⁸, N. Ozturk⁸, S. Ozturk⁸³, H. A. Pacey¹²⁸, A. Pacheco Pages¹³, C. Padilla Aranda¹³, G. Padovano^{76a,76b}, S. Pagan Griso^{17a}, G. Palacino⁶⁹, A. Palazzo^{71a,71b}, J. Pampel²⁴, J. Pan¹⁷⁴, T. Pan^{65a}, D. K. Panchal¹¹, C. E. Pandini¹¹⁶, J. G. Panduro Vazquez¹³⁶, H. D. Pandya¹, H. Pang^{14b}, P. Pani⁴⁸, G. Panizzo^{70a,70c}, L. Panwar¹²⁹, L. Paolozzi⁵⁷, S. Parajuli¹⁶⁴, A. Paramonov⁶, C. Paraskevopoulos⁵⁴, D. Paredes Hernandez^{65b}, A. Pareti^{74a,74b}, K. R. Park⁴¹, T. H. Park¹⁵⁷, M. A. Parker³², F. Parodi^{58a,58b}, E. W. Parrish¹¹⁷, V. A. Parrish⁵², J. A. Parsons⁴¹, U. Parzefall⁵⁵, B. Pascual Dias¹¹⁰, L. Pascual Dominguez¹⁰¹, E. Pasqualucci^{76a}, S. Passaggio^{58b}, F. Pastore⁹⁷, P. Patel⁸⁸, U. M. Patel⁵¹, J. R. Pater¹⁰³, T. Pauly^{36a}, C. I. Pazos¹⁶⁰, J. Pearkes¹⁴⁶, M. Pedersen¹²⁷, R. Pedro^{132a}, S. V. Peleganchuk³⁷, O. Penc^{36a}, E. A. Pender⁵², G. D. Penn¹⁷⁴, K. E. Penski¹¹¹, M. Penzin³⁷, B. S. Peralva^{84d}, A. P. Pereira Peixoto¹⁴¹, L. Pereira Sanchez¹⁴⁶, D. V. Perepelitsa^{29,ah}, E. Perez Codina^{158a}, M. Perganti¹⁰, H. Pernegger^{36a}, O. Perrin⁴⁰, K. Peters⁴⁸, R. F. Y. Peters¹⁰³, B. A. Petersen^{36a}, T. C. Petersen⁴²,

E. Petit¹⁰⁴, V. Petousis¹³⁴, C. Petridou^{155,e}, T. Petru¹³⁵, A. Petrukhin¹⁴⁴, M. Pettee^{17a}, N. E. Pettersson^{36a}, A. Petukhov³⁷, K. Petukhova¹³⁵, R. Pezoa^{139f}, L. Pezzotti^{36a}, G. Pezzullo¹⁷⁴, T. M. Pham¹⁷², T. Pham¹⁰⁷, P. W. Phillips¹³⁶, G. Piacquadio¹⁴⁸, E. Pianori^{17a}, F. Piazza¹²⁵, R. Piegai³⁰, D. Pietreanu^{27b}, A. D. Pilkington¹⁰³, M. Pinamonti^{70a,70c}, J. L. Pinfold², B. C. Pinheiro Pereira^{132a}, A. E. Pinto Pinoargote¹³⁷, L. Pintucci^{70a,70c}, K. M. Piper¹⁴⁹, A. Pirttikoski⁵⁷, D. A. Pizzi³⁴, L. Pizzimento^{65b}, A. Pizzini¹¹⁶, E. M. Planas Teruel⁵³, M. -A. Pleier²⁹, V. Pleskot¹³⁵, E. Plotnikova³⁸, G. Poddar⁹⁶, R. Poettgen¹⁰⁰, L. Poggioli¹²⁹, I. Pokharel⁵⁶, S. Polacek¹³⁵, G. Polesello^{74a}, A. Poley^{145,158a}, A. Polini^{23b}, C. S. Pollard¹⁶⁹, Z. B. Pollock¹²¹, E. Pompa Pacchi^{76a,76b}, N. I. Pond⁹⁸, D. Ponomarenko¹¹⁵, L. Pontecorvo^{36a}, S. Popa^{27a}, G. A. Popeneciu^{27d}, A. Poreba^{36a}, D. M. Portillo Quintero^{158a}, M. C. Porto Fernandez⁵³, S. Pospisil¹³⁴, M. A. Postill¹⁴², P. Postolache^{27c}, K. Potamianos¹⁶⁹, P. A. Potepa^{87a}, I. N. Potrap³⁸, C. J. Potter³², H. Potti¹, J. Poveda¹⁶⁵, M. E. Pozo Astigarraga^{36a}, A. Prades Ibanez¹⁶⁵, J. Pretel⁵⁵, D. Price¹⁰³, M. Primavera^{71a}, M. A. Principe Martin¹⁰¹, R. Privara¹²⁴, T. Procter⁶⁰, M. L. Proffitt¹⁴¹, N. Proklova¹³⁰, K. Prokofiev^{65c}, F. Prokoshin³⁸, G. Proto¹¹², J. Proudfoot⁶, M. Przybycien^{87a}, W. W. Przygoda^{87b}, A. Psallidas⁴⁶, J. E. Puddefoot¹⁴², D. Pudzha³⁷, D. Pyatiizbyantseva³⁷, J. Qian¹⁰⁸, D. Qichen¹⁰³, Y. Qin¹³, D. Qing^{158a}, T. Qiu⁵², A. Quadri⁵⁶, M. Queitsch-Maitland¹⁰³, G. Quetant⁵⁷, R. P. Quinn¹⁶⁶, G. Rabanal Bolanos⁶², D. Rafanoharana⁵⁵, F. Raffaeli^{77a,77b}, F. Ragusa^{72a,72b}, J. L. Rainbolt³⁹, J. A. Raine⁵⁷, S. Rajagopalan²⁹, E. Ramakoti³⁷, I. A. Ramirez-Berend³⁴, K. Ran^{14e,48}, N. P. Rapheeha^{33g}, H. Rasheed^{27b}, V. Raskina¹²⁹, D. F. Rassloff^{64a}, A. Rastogi^{17a}, S. Rave¹⁰², B. Ravina⁵⁶, I. Ravinovich¹⁷¹, M. Raymond^{36a}, A. L. Read¹²⁷, N. P. Readioff¹⁴², D. M. Rebuzzi^{74a,74b}, G. Redlinger²⁹, A. S. Reed¹¹², K. Reeves²⁶, J. A. Reidelsturz¹⁷³, D. Reikher¹⁵⁴, A. Rej⁴⁹, C. Rembser^{36a}, M. Renda^{27b}, M. B. Rendel¹¹², F. Renner⁴⁸, A. G. Rennie¹⁶¹, A. L. Rescia⁴⁸, S. Resconi^{72a}, M. Ressegotti^{58a,58b}, S. Rettie^{36a}, J. G. Reyes Rivera¹⁰⁹, E. Reynolds^{17a}, O. L. Rezanova³⁷, P. Reznicek¹³⁵, H. Riani^{35d}, N. Ribaric⁹³, E. Ricci^{79a,79b}, R. Richter¹¹², S. Richter^{47a,47b}, E. Richter-Was^{87b}, M. Ridet¹²⁹, S. Ridouani^{35d}, P. Rieck¹¹⁹, P. Riedler^{36a}, E. M. Riefel^{47a,47b}, J. O. Rieger¹¹⁶, M. Rijssenbeek¹⁴⁸, M. Rimoldi^{36a}, L. Rinaldi^{23a,23b}, O. Rind²⁹, T. T. Rinn²⁹, M. P. Rinnagel¹¹¹, G. Ripellino¹⁶³, I. Riu¹³, J. C. Rivera Vergara¹⁶⁷, F. Rizatdinova¹²³, E. Rizvi⁹⁶, B. R. Roberts^{17a}, S. H. Robertson^{106,x}, D. Robinson³², C. M. Robles Gajardo^{139f}, M. Robles Manzano¹⁰², A. Robson⁶⁰, A. Rocchi^{77a,77b}, C. Roda^{75a,75b}, S. Rodriguez Bosca^{36a}, Y. Rodriguez Garcia^{22a}, A. Rodriguez Rodriguez⁵⁵, A. M. Rodríguez Vera¹¹⁷, S. Roe^{36a}, J. T. Roemer¹⁶¹, A. R. Roepe-Gier¹³⁸, J. Roggel¹⁷³, O. Røhne¹²⁷, R. A. Rojas¹⁰⁵, C. P. A. Roland¹²⁹, J. Roloff²⁹, A. Romaniouk³⁷, E. Romano^{74a,74b}, M. Romano^{23b}, A. C. Romero Hernandez¹⁶⁴, N. Rompotis⁹⁴, L. Roos¹²⁹, S. Rosati^{76a}, B. J. Rosser³⁹, E. Rossi¹²⁸, E. Rossi^{73a,73b}, L. P. Rossi⁶², L. Rossini⁵⁵, R. Rosten¹²¹, M. Rotaru^{27b}, B. Rottler⁵⁵, C. Rougier⁹¹, D. Rousseau⁶⁷, D. Rouso⁴⁸, A. Roy¹⁶⁴, S. Roy-Garand¹⁵⁷, A. Rozanov¹⁰⁴, Z. M. A. Rozario⁶⁰, Y. Rozen¹⁵³, A. Rubio Jimenez¹⁶⁵, A. J. Ruby⁹⁴, V. H. Ruelas Rivera¹⁸, T. A. Ruggeri¹, A. Ruggiero¹²⁸, A. Ruiz-Martinez¹⁶⁵, A. Rummeler^{36a}, Z. Rurikova⁵⁵, N. A. Rusakovich³⁸, H. L. Russell¹⁶⁷, G. Russo^{76a,76b}, J. P. Rutherford⁷, S. Rutherford Colmenares³², M. Rybar¹³⁵, G. Rybkin⁶⁷, E. B. Rye¹²⁷, A. Ryzhov⁴⁴, J. A. Sabater Iglesias⁵⁷, P. Sabatini¹⁶⁵, H. F.-W. Sadrozinski¹³⁸, F. Safai Tehrani^{76a}, B. Safarzadeh Samani¹³⁶, S. Saha¹, M. Sahinsoy¹¹², A. Saibel¹⁶⁵, M. Saimpert¹³⁷, M. Saito¹⁵⁶, T. Saito¹⁵⁶, A. Sala^{72a,72b}, D. Salamani^{36a}, A. Salnikov¹⁴⁶, J. Salt¹⁶⁵, A. Salvador Salas¹⁵⁴, D. Salvatore^{43a,43b}, F. Salvatore¹⁴⁹, A. Salzburger^{36a}, D. Sammel⁵⁵, E. Sampson⁹³, D. Sampsonidis^{155,e}, D. Sampsonidou¹²⁵, J. Sánchez¹⁶⁵, V. Sanchez Sebastian¹⁶⁵, H. Sandaker¹²⁷, C. O. Sander⁴⁸, J. A. Sandesara¹⁰⁵, M. Sandhoff¹⁷³, C. Sandoval^{22b}, L. Sanfilippo^{64a}, D. P. C. Sankey¹³⁶, T. Sano⁸⁹, A. Sansoni⁵⁴, L. Santi^{76a,76b}, C. Santoni⁴⁰, H. Santos^{132a,132b}, A. Santra¹⁷¹, E. Sanzani^{23a,23b}, K. A. Saoucha¹⁶², A. Saponov³⁸, J. G. Saraiva^{132a,132d}, J. Sardain⁷, O. Sasaki⁸⁵, K. Sato¹⁵⁹, C. Sauer^{64b}, E. Sauvan⁴, P. Savard^{157,af}, R. Sawada¹⁵⁶, C. Sawyer¹³⁶, L. Sawyer⁹⁹, C. Sbarra^{23b}, A. Sbrizzi^{23a,23b}, T. Scanlon⁹⁸, J. Schaarschmidt¹⁴¹, U. Schäfer¹⁰², A. C. Schaffer^{44,67}, D. Schaile¹¹¹, R. D. Schamberger¹⁴⁸, C. Scharf¹⁸, M. M. Schefer¹⁹, V. A. Schegelsky³⁷, D. Scheirich¹³⁵, M. Schernau¹⁶¹, C. Scheulen⁵⁶, C. Schiavi^{58a,58b}, M. Schioppa^{43a,43b}, B. Schlag¹⁴⁶, K. E. Schleicher⁵⁵, S. Schlenker^{36a}, J. Schmeing¹⁷³, M. A. Schmidt¹⁷³, K. Schmieden¹⁰², C. Schmitt¹⁰², N. Schmitt¹⁰², S. Schmitt⁴⁸, L. Schoeffel¹³⁷, A. Schoening^{64b}, P. G. Scholer³⁴, E. Schopf¹²⁸, M. Schott²⁴, J. Schovancova^{36a}, S. Schramm⁵⁷, T. Schroer⁵⁷, H.-C. Schultz-Coulon^{64a}, M. Schulz^{36b}, M. Schumacher⁵⁵, B. A. Schumm¹³⁸, Ph. Schune¹³⁷, A. J. Schuy¹⁴¹, H. R. Schwartz¹³⁸, A. Schwartzman¹⁴⁶, P. A. Schwarz^{36a}, T. A. Schwarz¹⁰⁸, Ph. Schwemling¹³⁷, R. Schwiendorst¹⁰⁹, F. G. Sciacca¹⁹, A. Sciandra²⁹, G. Sciolla²⁶, F. Scuri^{75a}, C. D. Sebastiani⁹⁴, K. Sedlaczek¹¹⁷, S. C. Seidel¹¹⁴, A. Seiden¹³⁸, B. D. Seidlitz⁴¹, C. Seitz⁴⁸, J. M. Seixas^{84b}, G. Sekhniadze^{73a}, L. Selem⁶¹, N. Semprini-Cesari^{23a,23b}, D. Sengupta⁵⁷,

V. Senthilkumar¹⁶⁵ , C. Serfon²⁹ , L. Serin⁶⁷ , M. Sessa^{77a,77b} , H. Severini¹²² , F. Sforza^{58a,58b} , A. Sfyrta⁵⁷ , Q. Sha^{14a} , E. Shabalina⁵⁶ , A. H. Shah³² , R. Shaheen¹⁴⁷ , J. D. Shahinian¹³⁰ , D. Shaked Renous¹⁷¹ , L. Y. Shan^{14a} , M. Shapiro^{17a} , A. Sharma^{36a} , A. S. Sharma¹⁶⁶ , M. Sharma¹⁰⁸ , P. Sharma⁸¹ , P. B. Shatalov³⁷ , K. Shaw¹⁴⁹ , S. M. Shaw¹⁰³ , Q. Shen^{5,63c} , D. J. Sheppard¹⁴⁵ , P. Sherwood⁹⁸ , L. Shi⁹⁸ , X. Shi^{14a} , C. O. Shimmin¹⁷⁴ , S. Y-H Shin^{158a} , J. D. Shinner⁹⁷ , I. P. J. Shipsey^{128,*} , S. Shirabe⁹⁰ , M. Shiyakova^{38,v} , M. J. Shochet³⁹ , J. Shojaii¹⁰⁷ , D. R. Shope¹²⁷ , B. Shrestha¹²² , S. Shrestha^{121,ai} , M. J. Shroff¹⁶⁷ , P. Sicho¹³³ , A. M. Sickles¹⁶⁴ , E. Sideras Haddad^{33g} , A. C. Sidley¹¹⁶ , A. Sidoti^{23b} , F. Siegert⁵⁰ , Dj. Sijacki¹⁵ , F. Sili⁹² , J. M. Silva⁵² , E. Silva Junior^{36b} , M. V. Silva Oliveira²⁹ , S. B. Silverstein^{47a} , S. Simion⁶⁷ , B. Simmons⁹³ , R. Simoniello^{36a} , E. L. Simpson¹⁰³ , H. Simpson¹⁴⁹ , L. R. Simpson¹⁰⁸ , N. D. Simpson¹⁰⁰ , S. Simsek⁸³ , S. Sindhu⁵⁶ , P. Sinervo¹⁵⁷ , S. Singh¹⁵⁷ , S. Sinha⁴⁸ , S. Sinha¹⁰³ , M. Sioli^{23a,23b} , I. Siral^{36a} , E. Sitnikova⁴⁸ , J. Sjölin^{47a,47b} , A. Skaf⁵⁶ , E. Skorda²⁰ , P. Skubic¹²² , M. Slawinska⁸⁸ , V. Smakhtin¹⁷¹ , B. H. Smart¹³⁶ , S. Yu. Smirnov³⁷ , Y. Smirnov³⁷ , L. N. Smirnova^{37,a} , O. Smirnova¹⁰⁰ , A. C. Smith⁴¹ , D. R. Smith¹⁶¹ , E. A. Smith³⁹ , H. A. Smith¹²⁸ , J. L. Smith¹⁰³ , J. Smith²⁹ , R. Smith¹⁴⁶ , M. Smizanska⁹³ , K. Smolek¹³⁴ , A. A. Snesarev³⁷ , S. R. Snider¹⁵⁷ , H. L. Snoek¹¹⁶ , S. Snyder²⁹ , R. Sobie^{167,x} , A. Soffer¹⁵⁴ , C. A. Solans Sanchez^{36a} , E. Yu. Soldatov³⁷ , U. Soldevila¹⁶⁵ , A. A. Solodkov³⁷ , S. Solomon²⁶ , A. Soloshenko³⁸ , I. Soloviev¹⁶¹ , K. Solovieva⁵⁵ , O. V. Solovyanov⁴⁰ , P. Sommer^{36a} , A. Sonay¹³ , W. Y. Song^{158b} , A. Sopczak¹³⁴ , A. L. Sopio⁹⁸ , F. Sopkova^{28b} , J. D. Sorenson¹¹⁴ , M. Sosebee⁸ , I. R. Sotarriva Alvarez¹⁴⁰ , V. Sothilingam^{64a} , O. J. Soto Sandoval^{139b,139c} , S. Sottocornola⁶⁹ , R. Soualah¹⁶² , Z. Soumami^{35e} , D. South⁴⁸ , N. Soybelman¹⁷¹ , S. Spagnolo^{71a,71b} , M. Spalla¹¹² , D. Sperlich⁵⁵ , G. Spigo^{36a} , S. Spinali⁹³ , D. P. Spiteri⁶⁰ , M. Spousta¹³⁵ , E. J. Staats³⁴ , R. Stamen^{64a} , A. Stampekis²⁰ , M. Standke²⁴ , E. Stanecka⁸⁸ , W. Stanek-Maslouska⁴⁸ , M. V. Stange⁵⁰ , B. Stanislaus^{17a} , M. M. Stanitzki⁴⁸ , B. Stapf⁴⁸ , E. A. Starchenko³⁷ , G. H. Stark¹³⁸ , J. Stark⁹¹ , P. Staroba¹³³ , P. Starovoitov^{64a} , S. Stärrz¹⁰⁶ , R. Staszewski⁸⁸ , G. Stavropoulos⁴⁶ , J. Steentoft¹⁶³ , P. Steinberg²⁹ , B. Stelzer^{145,158a} , H. J. Stelzer¹³¹ , O. Stelzer-Chilton^{158a} , H. Stenzel⁵⁹ , J. L. Stephen³⁹ , T. J. Stevenson¹⁴⁹ , G. A. Stewart^{36a} , J. R. Stewart¹²³ , M. C. Stockton^{36a} , G. Stoica^{27b} , M. Stolarski^{132a} , S. Stonjek¹¹² , A. Straessner⁵⁰ , J. Strandberg¹⁴⁷ , S. Strandberg^{47a,47b} , M. Stratmann¹⁷³ , M. Strauss¹²² , T. Streblor¹⁰⁴ , P. Strizenec^{28b} , R. Ströhmer¹⁶⁸ , D. M. Strom¹²⁵ , R. Stroynowski⁴⁴ , A. Strubig^{47a,47b} , S. A. Stucci²⁹ , B. Stugu¹⁶ , J. Stupak¹²² , N. A. Styles⁴⁸ , D. Su¹⁴⁶ , S. Su^{63a} , W. Su^{63d} , X. Su^{63a} , D. Suchy^{28a} , K. Sugizaki¹⁵⁶ , V. V. Sulin³⁷ , M. J. Sullivan⁹⁴ , D. M. S. Sultan¹²⁸ , L. Sultanaliyeva³⁷ , S. Sultansoy^{3b} , T. Sumida⁸⁹ , S. Sun¹⁰⁸ , S. Sun¹⁷² , O. Sunneborn Gudnadottir¹⁶³ , N. Sur¹⁰⁴ , M. R. Sutton¹⁴⁹ , H. Suzuki¹⁵⁹ , M. Svatos¹³³ , M. Swiatkowski^{158a} , T. Swirski¹⁶⁸ , I. Sykora^{28a} , M. Sykora¹³⁵ , T. Sykora¹³⁵ , M. P. Szymanski⁶ , D. Ta¹⁰² , K. Tackmann^{48,u} , A. Taffard¹⁶¹ , R. Tafiout^{158a} , J. S. Tafoya Vargas⁶⁷ , Y. Takubo⁸⁵ , M. Talby¹⁰⁴ , A. A. Talyshv³⁷ , K. C. Tam^{65b} , N. M. Tamir¹⁵⁴ , A. Tanaka¹⁵⁶ , J. Tanaka¹⁵⁶ , R. Tanaka⁶⁷ , M. Tanasini¹⁴⁸ , Z. Tao¹⁶⁶ , S. Tapia Araya^{139f} , S. Tapprogge¹⁰² , A. Tarek Abouelfadl Mohamed¹⁰⁹ , S. Tarem¹⁵³ , K. Tariq^{14a} , G. Tarna^{27b} , G. F. Tartarelli^{72a} , M. J. Tartarin⁹¹ , P. Tas¹³⁵ , M. Tasevsky¹³³ , E. Tassi^{43a,43b} , A. C. Tate¹⁶⁴ , G. Tateno¹⁵⁶ , Y. Tayalati^{35e,w} , G. N. Taylor¹⁰⁷ , R. P. Taylor¹⁶⁷ , W. Taylor^{158b} , A. S. Tee¹⁷² , R. Teixeira De Lima¹⁴⁶ , P. Teixeira-Dias⁹⁷ , J. J. Teoh¹⁵⁷ , K. Terashi¹⁵⁶ , J. Terron¹⁰¹ , S. Terzo¹³ , M. Testa⁵⁴ , R. J. Teuscher^{157,x} , A. Thaler⁸⁰ , O. Theiner⁵⁷ , N. Themistokleous⁵² , T. Theveneaux-Pelzer¹⁰⁴ , O. Thielmann¹⁷³ , D. W. Thomas⁹⁷ , J. P. Thomas²⁰ , E. A. Thompson^{17a} , P. D. Thompson²⁰ , E. Thomson¹³⁰ , R. E. Thornberry⁴⁴ , Y. Tian⁵⁶ , V. Tikhomirov^{37,a} , Yu. A. Tikhonov³⁷ , S. Timoshenko³⁷ , D. Timoshyn¹³⁵ , E. X. L. Ting¹ , P. Tipton¹⁷⁴ , S. H. Tlou^{33g} , K. Todome¹⁴⁰ , S. Todorova-Nova¹³⁵ , S. Todt⁵⁰ , L. Toffolin^{70a,70c} , M. Togawa⁸⁵ , J. Tojo⁹⁰ , S. Tokár^{28a} , K. Tokushuku⁸⁵ , O. Toldaiev⁶⁹ , R. Tombs³² , M. Tomoto^{85,113} , L. Tompkins^{146,m} , K. W. Topolnicki^{87b} , E. Torrence¹²⁵ , H. Torres⁹¹ , E. Torró Pastor¹⁶⁵ , M. Toscani³⁰ , C. Toscirri³⁹ , M. Tost¹¹ , D. R. Tovey¹⁴² , A. Traet¹⁶

A. Vallier⁹¹, J. A. Valls Ferrer¹⁶⁵, D. R. Van Arneman¹¹⁶, T. R. Van Daalen¹⁴¹, A. Van Der Graaf⁴⁹, P. Van Gemmeren⁶, M. Van Rijnbach^{36a}, S. Van Stroud⁹⁸, I. Van Vulpen¹¹⁶, P. Vana¹³⁵, M. Vanadia^{77a,77b}, W. Vandelli^{36a}, E. R. Vandewall¹²³, D. Vannicola¹⁵⁴, L. Vannoli⁵⁴, R. Vari^{76a}, E. W. Varnes⁷, C. Varni^{17b}, T. Varol¹⁵¹, D. Varouchas⁶⁷, L. Varriale¹⁶⁵, A. Vartapetian⁸, K. E. Varvell¹⁵⁰, M. E. Vasile^{27b}, L. Vaslin⁸⁵, G. A. Vasquez¹⁶⁷, A. Vasyukov³⁸, R. Vavricka¹⁰², T. Vazquez Schroeder^{36a}, J. Veatch³¹, V. Vecchio¹⁰³, M. J. Veen¹⁰⁵, I. Veliscek²⁹, L. M. Veloce¹⁵⁷, F. Veloso^{132a,132c}, S. Veneziano^{76a}, A. Ventura^{71a,71b}, S. Ventura Gonzalez¹³⁷, A. Verbitskyi¹¹², M. Verducci^{75a,75b}, C. Vergis⁹⁶, M. Verissimo De Araujo^{84b}, W. Verkerke¹¹⁶, J. C. Vermeulen¹¹⁶, C. Vernieri¹⁴⁶, M. Vessella¹⁰⁵, M. C. Vetterli^{145.af}, A. Vgenopoulos^{155.e}, N. Viaux Maira^{139f}, T. Vickey¹⁴², O. E. Vickey Boeriu¹⁴², G. H. A. Viehhauser¹²⁸, L. Vigani^{64b}, M. Villa^{23a,23b}, M. Villaplana Perez¹⁶⁵, E. M. Villhauer⁵², E. Vilucchi⁵⁴, M. G. Vinciter³⁴, A. Visibile¹¹⁶, C. Vittori^{36a}, I. Vivarelli^{23a,23b}, E. Voevodina¹¹², F. Vogel¹¹¹, M. Vogel⁸, J. C. Voigt⁵⁰, P. Vokac¹³⁴, Yu. Volkotrub^{87b}, J. Von Ahnen⁴⁸, E. Von Toerne²⁴, B. Vormwald^{36a}, V. Vorobel¹³⁵, K. Vorobev³⁷, M. Vos¹⁶⁵, K. Voss¹⁴⁴, M. Vozak¹¹⁶, L. Vozdecky¹²², N. Vranjes¹⁵, M. Vranjes Milosavljevic¹⁵, M. Vreeswijk¹¹⁶, N. K. Vu^{63c,63d}, R. Vuillermet^{36a}, O. Vujinovic¹⁰², I. Vukotic³⁹, S. Wada¹⁵⁹, C. Wagner¹⁰⁵, J. M. Wagner^{17a}, W. Wagner¹⁷³, S. Wahdan¹⁷³, H. Wahlberg⁹², M. Wakida¹¹³, J. Walder¹³⁶, R. Walker¹¹¹, W. Walkowiak¹⁴⁴, A. Wall¹³⁰, E. J. Wallin¹⁰⁰, T. Wamorkar⁶, A. Z. Wang¹³⁸, C. Wang¹⁰², C. Wang¹¹, H. Wang^{17a}, J. Wang^{65c}, R. Wang⁶², R. Wang⁶, S. M. Wang¹⁵¹, S. Wang^{63b}, S. Wang^{14a}, T. Wang^{63a}, W. T. Wang⁸¹, W. Wang^{14a}, X. Wang^{14c}, X. Wang¹⁶⁴, X. Wang^{63c}, Y. Wang^{63d}, Y. Wang^{14c}, Z. Wang¹⁰⁸, Z. Wang^{51,63c,63d}, Z. Wang¹⁰⁸, A. Warburton¹⁰⁶, R. J. Ward²⁰, N. Warrack⁶⁰, S. Waterhouse⁹⁷, A. T. Watson²⁰, H. Watson⁶⁰, M. F. Watson²⁰, E. Watton^{60,136}, G. Watts¹⁴¹, B. M. Waugh⁹⁸, J. M. Webb⁵⁵, C. Weber²⁹, H. A. Weber¹⁸, M. S. Weber¹⁹, S. M. Weber^{64a}, C. Wei^{63a}, Y. Wei⁵⁵, A. R. Weidberg¹²⁸, E. J. Weik¹¹⁹, J. Weingarten⁴⁹, C. Weiser⁵⁵, C. J. Wells⁴⁸, T. Wenaus²⁹, B. Wendland⁴⁹, T. Wengler^{36a}, N. S. Wenke¹¹², N. Wermes²⁴, M. Wessels^{64a}, A. M. Wharton⁹³, A. S. White⁶², A. White⁸, M. J. White¹, D. Whiteson¹⁶¹, L. Wickremasinghe¹²⁶, W. Wiedenmann¹⁷², M. WIELERS¹³⁶, C. WIGLESWORTH⁴², D. J. Wilbern¹²², H. G. Wilkens^{36a}, J. J. H. Wilkinson³², D. M. Williams⁴¹, H. H. Williams¹³⁰, S. Williams³², S. Willocq¹⁰⁵, B. J. Wilson¹⁰³, P. J. Windischhofer³⁹, F. I. Winkel³⁰, F. Winklmeier¹²⁵, B. T. Winter⁵⁵, J. K. Winter¹⁰³, M. Wittgen¹⁴⁶, M. Wobisch⁹⁹, T. Wojtkowski⁶¹, Z. Wolffs¹¹⁶, J. Wollrath¹⁶¹, M. W. Wolter⁸⁸, H. Wolters^{132a,132c}, A. Wong²⁹, A. Y. Wong^{158a}, M. C. Wong¹³⁸, E. L. Woodward⁴¹, S. D. Worm⁴⁸, B. K. Wosiek⁸⁸, K. W. Woźniak⁸⁸, S. Wozniowski⁵⁶, K. Wraight⁶⁰, C. Wu²⁰, M. Wu^{14d}, M. Wu¹¹⁵, S. L. Wu¹⁷², W. Wu¹⁰⁸, X. Wu⁵⁷, Y. Wu^{63a}, Z. Wu⁴, J. Wuerzinger^{112.ad}, T. R. Wyatt¹⁰³, B. M. Wynne⁵², S. Xella⁴², L. Xia^{14c}, M. Xia^{14b}, J. Xiang^{65c}, M. Xie^{63a}, S. Xin^{14a,14e}, A. Xiong¹²⁵, J. Xiong^{17a}, D. Xu^{14a}, H. Xu^{63a}, L. Xu^{63a}, R. Xu¹³⁰, T. Xu¹⁰⁸, Y. Xu^{14b}, Z. Xu⁵², Z. Xu^{14c}, B. Yabsley¹⁵⁰, S. Yacooob^{33a}, Y. Yamaguchi¹⁴⁰, E. Yamashita¹⁵⁶, H. Yamauchi¹⁵⁹, T. Yamazaki^{17a}, Y. Yamazaki⁸⁶, J. Yan^{63c}, S. Yan⁶⁰, Z. Yan¹⁰⁵, H. J. Yang^{63c,63d}, H. T. Yang^{63a}, S. Yang^{63a}, T. Yang^{65c}, W. Yang¹⁴⁶, X. Yang^{36a}, X. Yang^{14a}, Y. Yang⁴⁴, Y. Yang^{63a}, Z. Yang^{63a}, W-M. Yao^{17a}, H. Ye^{14c}, H. Ye⁵⁶, J. Ye^{14a}, S. Ye²⁹, X. Ye^{63a}, Y. Yeh⁹⁸, I. Yeletsikh³⁸, B. Yeo^{17b}, M. R. Yexley⁹⁸, T. P. Yildirim¹²⁸, P. Yin⁴¹, K. Yorita¹⁷⁰, S. Younas^{27b}, C. J. S. Young^{36a}, C. Young¹⁴⁶, C. Yu^{14a,14e}, Y. Yu^{63a}, M. Yuan¹⁰⁸, R. Yuan^{63c,63d}, L. Yue⁹⁸, M. Zaazoua^{63a}, B. Zabinski⁸⁸, E. Zaid⁵², Z. K. Zak⁸⁸, T. Zakareishvili¹⁶⁵, N. Zakharchuk³⁴, S. Zambito⁵⁷, J. A. Zamora Saa^{139b,139d}, J. Zang¹⁵⁶, D. Zanzi⁵⁵, O. Zaplatilek¹³⁴, C. Zeitnitz¹⁷³, H. Zeng^{14a}, J. C. Zeng¹⁶⁴, D. T. Zenger Jr²⁶, O. Zenin³⁷, T. Ženiš^{28a}, S. Zenz⁹⁶, S. Zerradi^{35a}, D. Zerwas⁶⁷, M. Zhai^{14a,14e}, D. F. Zhang¹⁴², J. Zhang^{63b}, J. Zhang⁶, K. Zhang^{14a,14e}, L. Zhang^{63a}, L. Zhang^{14c}, P. Zhang^{14a,14e}, R. Zhang¹⁷², S. Zhang¹⁰⁸, S. Zhang⁹¹, T. Zhang¹⁵⁶, X. Zhang^{63c}, X. Zhang^{63b}, Y. Zhang^{63c}, Y. Zhang⁹⁸, Y. Zhang^{14c}, Z. Zhang^{17a}, Z. Zhang⁶⁷, H. Zhao¹⁴¹, T. Zhao^{63b}, X. Zhao²⁹, Y. Zhao¹³⁸, Z. Zhao^{63a}, Z. Zhao^{63a}, A. Zhemchugov³⁸, J. Zheng^{14c}, K. Zheng¹⁶⁴, X. Zheng^{63a}, Z. Zheng¹⁴⁶, D. Zhong¹⁶⁴, B. Zhou¹⁰⁸, H. Zhou⁷, N. Zhou^{63c}, Y. Zhou^{14b}, Y. Zhou^{14c}, Y. Zhou⁷, C. G. Zhu^{63b}, J. Zhu¹⁰⁸, X. Zhu^{63d}, Y. Zhu^{63c}, Y. Zhu^{63a}, X. Zhuang^{14a}, K. Zhukov³⁷, N. I. Zimine³⁸, J. Zinsser^{64b}, M. Ziolkowski¹⁴⁴, L. Živković¹⁵, A. Zoccoli^{23a,23b}, K. Zoch⁶², T. G. Zorbas¹⁴², O. Zormpa⁴⁶, W. Zou⁴¹, L. Zwalinski^{36a}, John Apostolakis^{36a}, Imran Latif²⁹, Christian Lepore²⁹, Mark Lukasczyk²⁹, Mihaly Novak^{36a}, Fedor Prokoshin³⁷, Andrey Sapronov³⁷, Yingzi Wu²⁹

- ¹ Department of Physics, University of Adelaide, Adelaide, Australia
- ² Department of Physics, University of Alberta, Edmonton, AB, Canada
- ³ (a) Department of Physics, Ankara University, Ankara, Türkiye; (b) Division of Physics, TOBB University of Economics and Technology, Ankara, Türkiye
- ⁴ LAPP, Université Savoie Mont Blanc, CNRS/IN2P3, Annecy, France
- ⁵ APC, Université Paris Cité, CNRS/IN2P3, Paris, France
- ⁶ High Energy Physics Division, Argonne National Laboratory, Argonne, IL, USA
- ⁷ Department of Physics, University of Arizona, Tucson, AZ, USA
- ⁸ Department of Physics, University of Texas at Arlington, Arlington, TX, USA
- ⁹ Physics Department, National and Kapodistrian University of Athens, Athens, Greece
- ¹⁰ Physics Department, National Technical University of Athens, Zografou, Greece
- ¹¹ Department of Physics, University of Texas at Austin, Austin, TX, USA
- ¹² Institute of Physics, Azerbaijan Academy of Sciences, Baku, Azerbaijan
- ¹³ Institut de Física d'Altes Energies (IFAE), Barcelona Institute of Science and Technology, Barcelona, Spain
- ¹⁴ (a) Institute of High Energy Physics, Chinese Academy of Sciences, Beijing, China; (b) Physics Department, Tsinghua University, Beijing, China; (c) Department of Physics, Nanjing University, Nanjing, China; (d) School of Science, Shenzhen Campus of Sun Yat-sen University, Shenzhen, China; (e) University of Chinese Academy of Science (UCAS), Beijing, China
- ¹⁵ Institute of Physics, University of Belgrade, Belgrade, Serbia
- ¹⁶ Department for Physics and Technology, University of Bergen, Bergen, Norway
- ¹⁷ (a) Physics Division, Lawrence Berkeley National Laboratory, Berkeley, CA, USA; (b) University of California, Berkeley, CA, USA
- ¹⁸ Institut für Physik, Humboldt Universität zu Berlin, Berlin, Germany
- ¹⁹ Albert Einstein Center for Fundamental Physics and Laboratory for High Energy Physics, University of Bern, Bern, Switzerland
- ²⁰ School of Physics and Astronomy, University of Birmingham, Birmingham, UK
- ²¹ (a) Department of Physics, Bogazici University, Istanbul, Türkiye; (b) Department of Physics Engineering, Gaziantep University, Gaziantep, Türkiye; (c) Department of Physics, Istanbul University, Istanbul, Türkiye
- ²² (a) Facultad de Ciencias y Centro de Investigaciones, Universidad Antonio Nariño, Bogotá, Colombia; (b) Departamento de Física, Universidad Nacional de Colombia, Bogotá, Colombia
- ²³ (a) Dipartimento di Fisica e Astronomia A. Righi, Università di Bologna, Bologna, Italy; (b) INFN Sezione di Bologna, Bologna, Italy
- ²⁴ Physikalisches Institut, Universität Bonn, Bonn, Germany
- ²⁵ Department of Physics, Boston University, Boston, MA, USA
- ²⁶ Department of Physics, Brandeis University, Waltham, MA, USA
- ²⁷ (a) Transilvania University of Brasov, Brasov, Romania; (b) Horia Hulubei National Institute of Physics and Nuclear Engineering, Bucharest, Romania; (c) Department of Physics, Alexandru Ioan Cuza University of Iasi, Iasi, Romania; (d) Physics Department, National Institute for Research and Development of Isotopic and Molecular Technologies, Cluj-Napoca, Romania; (e) National University of Science and Technology Politehnica, Bucharest, Romania; (f) West University in Timisoara, Timisoara, Romania; (g) Faculty of Physics, University of Bucharest, Bucharest, Romania
- ²⁸ (a) Faculty of Mathematics, Physics and Informatics, Comenius University, Bratislava, Slovak Republic; (b) Department of Subnuclear Physics, Institute of Experimental Physics of the Slovak Academy of Sciences, Kosice, Slovak Republic
- ²⁹ Physics Department, Brookhaven National Laboratory, Upton, NY, USA
- ³⁰ Departamento de Física, y CONICET, Facultad de Ciencias Exactas y Naturales, Instituto de Física de Buenos Aires (IFIBA), Universidad de Buenos Aires, Buenos Aires, Argentina
- ³¹ California State University, Los Angeles, CA, USA
- ³² Cavendish Laboratory, University of Cambridge, Cambridge, UK
- ³³ (a) Department of Physics, University of Cape Town, Cape Town, South Africa; (b) iThemba Labs, Western Cape, South Africa; (c) Department of Mechanical Engineering Science, University of Johannesburg, Johannesburg, South Africa; (d) National Institute of Physics, University of the Philippines, Diliman, Philippines; (e) Department of Physics, University of South Africa, Pretoria, South Africa; (f) University of Zululand, KwaDlangezwa,

- South Africa; ^(g)School of Physics, University of the Witwatersrand, Johannesburg, South Africa
- ³⁴ Department of Physics, Carleton University, Ottawa, ON, Canada
- ³⁵ ^(a)Faculté des Sciences Ain Chock, Université Hassan II de Casablanca, Casablanca, Morocco; ^(b)Faculté des Sciences, Université Ibn-Tofail, Kénitra, Morocco; ^(c)Faculté des Sciences Semlalia, Université Cadi Ayyad, LPHEA-Marrakech, Morocco; ^(d)LPMR, Faculté des Sciences, Université Mohamed Premier, Oujda, Morocco; ^(e)Faculté des sciences, Université Mohammed V, Rabat, Morocco; ^(f)Institute of Applied Physics, Mohammed VI Polytechnic University, Ben Guerir, Morocco
- ³⁶ ^(a)CERN, Geneva, Switzerland; ^(b)CERN Tier-0, Geneva, Switzerland
- ³⁷ Affiliated with an Institute Covered by a Cooperation Agreement with CERN, Geneva, Switzerland
- ³⁸ Affiliated with an International Laboratory Covered by a Cooperation Agreement with CERN, Geneva, Switzerland
- ³⁹ Enrico Fermi Institute, University of Chicago, Chicago, IL, USA
- ⁴⁰ LPC, Université Clermont Auvergne, CNRS/IN2P3, Clermont-Ferrand, France
- ⁴¹ Nevis Laboratory, Columbia University, Irvington, NY, USA
- ⁴² Niels Bohr Institute, University of Copenhagen, Copenhagen, Denmark
- ⁴³ ^(a)Dipartimento di Fisica, Università della Calabria, Rende, Italy; ^(b)INFN Gruppo Collegato di Cosenza, Laboratori Nazionali di Frascati, Frascati, Italy
- ⁴⁴ Physics Department, Southern Methodist University, Dallas, TX, USA
- ⁴⁵ Physics Department, University of Texas at Dallas, Richardson, TX, USA
- ⁴⁶ National Centre for Scientific Research “Demokritos”, Agia Paraskevi, Greece
- ⁴⁷ ^(a)Department of Physics, Stockholm University, Stockholm, Sweden; ^(b)Oskar Klein Centre, Stockholm, Sweden
- ⁴⁸ Deutsches Elektronen-Synchrotron DESY, Hamburg and Zeuthen, Germany
- ⁴⁹ Fakultät Physik, Technische Universität Dortmund, Dortmund, Germany
- ⁵⁰ Institut für Kern- und Teilchenphysik, Technische Universität Dresden, Dresden, Germany
- ⁵¹ Department of Physics, Duke University, Durham, NC, USA
- ⁵² SUPA-School of Physics and Astronomy, University of Edinburgh, Edinburgh, UK
- ⁵³ Port d'Informació Científica (PIC), Universitat Autònoma de Barcelona (UAB), Bellaterra, Spain
- ⁵⁴ INFN e Laboratori Nazionali di Frascati, Frascati, Italy
- ⁵⁵ Physikalisches Institut, Albert-Ludwigs-Universität Freiburg, Freiburg, Germany
- ⁵⁶ II. Physikalisches Institut, Georg-August-Universität Göttingen, Göttingen, Germany
- ⁵⁷ Département de Physique Nucléaire et Corpusculaire, Université de Genève, Geneva, Switzerland
- ⁵⁸ ^(a)Dipartimento di Fisica, Università di Genova, Genoa, Italy; ^(b)INFN Sezione di Genova, Genoa, Italy
- ⁵⁹ II. Physikalisches Institut, Justus-Liebig-Universität Giessen, Giessen, Germany
- ⁶⁰ SUPA-School of Physics and Astronomy, University of Glasgow, Glasgow, UK
- ⁶¹ LPSC, Université Grenoble Alpes, CNRS/IN2P3, Grenoble INP, Grenoble, France
- ⁶² Laboratory for Particle Physics and Cosmology, Harvard University, Cambridge, MA, USA
- ⁶³ ^(a)Department of Modern Physics and State Key Laboratory of Particle Detection and Electronics, University of Science and Technology of China, Hefei, China; ^(b)Institute of Frontier and Interdisciplinary Science and Key Laboratory of Particle Physics and Particle Irradiation (MOE), Shandong University, Qingdao, China; ^(c)School of Physics and Astronomy, Shanghai Jiao Tong University, Key Laboratory for Particle Astrophysics and Cosmology (MOE), SKLPPC, Shanghai, China; ^(d)Tsung-Dao Lee Institute, Shanghai, China; ^(e)School of Physics, Zhengzhou University, Zhengzhou, China
- ⁶⁴ ^(a)Kirchhoff-Institut für Physik, Ruprecht-Karls-Universität Heidelberg, Heidelberg, Germany; ^(b)Physikalisches Institut, Ruprecht-Karls-Universität Heidelberg, Heidelberg, Germany
- ⁶⁵ ^(a)Department of Physics, Chinese University of Hong Kong, Shatin, N.T., Hong Kong, China; ^(b)Department of Physics, University of Hong Kong, Hong Kong, China; ^(c)Department of Physics and Institute for Advanced Study, Hong Kong University of Science and Technology, Clear Water Bay, Kowloon, Hong Kong, China
- ⁶⁶ Department of Physics, National Tsing Hua University, Hsinchu, Taiwan
- ⁶⁷ IJCLab, Université Paris-Saclay, CNRS/IN2P3, 91405 Orsay, France
- ⁶⁸ Centro Nacional de Microelectrónica (IMB-CNM-CSIC), Barcelona, Spain
- ⁶⁹ Department of Physics, Indiana University, Bloomington, IN, USA
- ⁷⁰ ^(a)INFN Gruppo Collegato di Udine, Sezione di Trieste, Udine, Italy; ^(b)ICTP, Trieste, Italy; ^(c)Dipartimento Politecnico di Ingegneria e Architettura, Università di Udine, Udine, Italy
- ⁷¹ ^(a)INFN Sezione di Lecce, Lecce, Italy; ^(b)Dipartimento di Matematica e Fisica, Università del Salento, Lecce, Italy

- 72 (a) INFN Sezione di Milano, Milan, Italy; (b) Dipartimento di Fisica, Università di Milano, Milan, Italy
- 73 (a) INFN Sezione di Napoli, Naples, Italy; (b) Dipartimento di Fisica, Università di Napoli, Naples, Italy
- 74 (a) INFN Sezione di Pavia, Pavia, Italy; (b) Dipartimento di Fisica, Università di Pavia, Pavia, Italy
- 75 (a) INFN Sezione di Pisa, Pisa, Italy; (b) Dipartimento di Fisica E. Fermi, Università di Pisa, Pisa, Italy
- 76 (a) INFN Sezione di Roma, Rome, Italy; (b) Dipartimento di Fisica, Sapienza Università di Roma, Rome, Italy
- 77 (a) INFN Sezione di Roma Tor Vergata, Rome, Italy; (b) Dipartimento di Fisica, Università di Roma Tor Vergata, Rome, Italy
- 78 (a) INFN Sezione di Roma Tre, Rome, Italy; (b) Dipartimento di Matematica e Fisica, Università Roma Tre, Rome, Italy
- 79 (a) INFN-TIFPA, Povo, Italy; (b) Università degli Studi di Trento, Trento, Italy
- 80 Department of Astro and Particle Physics, Universität Innsbruck, Innsbruck, Austria
- 81 University of Iowa, Iowa City, IA, USA
- 82 Department of Physics and Astronomy, Iowa State University, Ames, IA, USA
- 83 Istinye University, Sariyer, Istanbul, Türkiye
- 84 (a) Departamento de Engenharia Elétrica, Universidade Federal de Juiz de Fora (UFJF), Juiz de Fora, Brazil; (b) Universidade Federal do Rio De Janeiro COPPE/EE/IF, Rio de Janeiro, Brazil; (c) Instituto de Física, Universidade de São Paulo, São Paulo, Brazil; (d) Rio de Janeiro State University, Rio de Janeiro, Brazil; (e) Federal University of Bahia, Bahia, Brazil
- 85 KEK, High Energy Accelerator Research Organization, Tsukuba, Japan
- 86 Graduate School of Science, Kobe University, Kobe, Japan
- 87 (a) AGH University of Krakow, Faculty of Physics and Applied Computer Science, Krakow, Poland; (b) Marian Smoluchowski Institute of Physics, Jagiellonian University, Krakow, Poland
- 88 Institute of Nuclear Physics Polish Academy of Sciences, Krakow, Poland
- 89 Faculty of Science, Kyoto University, Kyoto, Japan
- 90 Research Center for Advanced Particle Physics and Department of Physics, Kyushu University, Fukuoka, Japan
- 91 L2IT, Université de Toulouse, CNRS/IN2P3, UPS, Toulouse, France
- 92 Instituto de Física La Plata, Universidad Nacional de La Plata and CONICET, La Plata, Argentina
- 93 Physics Department, Lancaster University, Lancaster, UK
- 94 Oliver Lodge Laboratory, University of Liverpool, Liverpool, UK
- 95 Department of Experimental Particle Physics, Jožef Stefan Institute and Department of Physics, University of Ljubljana, Ljubljana, Slovenia
- 96 School of Physics and Astronomy, Queen Mary University of London, London, UK
- 97 Department of Physics, Royal Holloway University of London, Egham, UK
- 98 Department of Physics and Astronomy, University College London, London, UK
- 99 Louisiana Tech University, Ruston, LA, USA
- 100 Fysiska Institutionen, Lunds Universitet, Lund, Sweden
- 101 Departamento de Física Teórica C-15 and CIAFF, Universidad Autónoma de Madrid, Madrid, Spain
- 102 Institut für Physik, Universität Mainz, Mainz, Germany
- 103 School of Physics and Astronomy, University of Manchester, Manchester, UK
- 104 CPPM, Aix-Marseille Université, CNRS/IN2P3, Marseille, France
- 105 Department of Physics, University of Massachusetts, Amherst, MA, USA
- 106 Department of Physics, McGill University, Montreal, QC, Canada
- 107 School of Physics, University of Melbourne, Victoria, Australia
- 108 Department of Physics, University of Michigan, Ann Arbor, MI, USA
- 109 Department of Physics and Astronomy, Michigan State University, East Lansing, MI, USA
- 110 Group of Particle Physics, University of Montreal, Montreal, QC, Canada
- 111 Fakultät für Physik, Ludwig-Maximilians-Universität München, Munich, Germany
- 112 Max-Planck-Institut für Physik (Werner-Heisenberg-Institut), Munich, Germany
- 113 Graduate School of Science and Kobayashi-Maskawa Institute, Nagoya University, Nagoya, Japan
- 114 Department of Physics and Astronomy, University of New Mexico, Albuquerque, NM, USA
- 115 Institute for Mathematics, Astrophysics and Particle Physics, Radboud University/Nikhef, Nijmegen, The Netherlands
- 116 Nikhef National Institute for Subatomic Physics and University of Amsterdam, Amsterdam, The Netherlands
- 117 Department of Physics, Northern Illinois University, DeKalb, IL, USA

- 118 (a)New York University Abu Dhabi, Abu Dhabi, United Arab Emirates; (b)United Arab Emirates University, Al Ain, United Arab Emirates
- 119 Department of Physics, New York University, New York, NY, USA
- 120 Ochanomizu University, Otsuka, Bunkyo-ku, Tokyo, Japan
- 121 Ohio State University, Columbus, OH, USA
- 122 Homer L. Dodge Department of Physics and Astronomy, University of Oklahoma, Norman, OK, USA
- 123 Department of Physics, Oklahoma State University, Stillwater, OK, USA
- 124 Joint Laboratory of Optics, Palacký University, Olomouc, Czech Republic
- 125 Institute for Fundamental Science, University of Oregon, Eugene, OR, USA
- 126 Graduate School of Science, Osaka University, Osaka, Japan
- 127 Department of Physics, University of Oslo, Oslo, Norway
- 128 Department of Physics, Oxford University, Oxford, UK
- 129 LPNHE, Sorbonne Université, Université Paris Cité, CNRS/IN2P3, Paris, France
- 130 Department of Physics, University of Pennsylvania, Philadelphia, PA, USA
- 131 Department of Physics and Astronomy, University of Pittsburgh, Pittsburgh, PA, USA
- 132 (a)Laboratório de Instrumentação e Física Experimental de Partículas-LIP, Lisbon, Portugal; (b)Departamento de Física, Faculdade de Ciências, Universidade de Lisboa, Lisbon, Portugal; (c)Departamento de Física, Universidade de Coimbra, Coimbra, Portugal; (d)Centro de Física Nuclear da Universidade de Lisboa, Lisbon, Portugal; (e)Departamento de Física, Universidade do Minho, Braga, Portugal; (f)Departamento de Física Teórica y del Cosmos, Universidad de Granada, Granada, Spain; (g)Departamento de Física, Instituto Superior Técnico, Universidade de Lisboa, Lisbon, Portugal
- 133 Institute of Physics of the Czech Academy of Sciences, Prague, Czech Republic
- 134 Czech Technical University in Prague, Prague, Czech Republic
- 135 Charles University, Faculty of Mathematics and Physics, Prague, Czech Republic
- 136 Particle Physics Department, Rutherford Appleton Laboratory, Didcot, UK
- 137 IRFU, CEA, Université Paris-Saclay, Gif-sur-Yvette, France
- 138 Santa Cruz Institute for Particle Physics, University of California Santa Cruz, Santa Cruz, CA, USA
- 139 (a)Departamento de Física, Pontificia Universidad Católica de Chile, Santiago, Chile; (b)Millennium Institute for Subatomic Physics at High Energy Frontier (SAPHIR), Santiago, Chile; (c)Instituto de Investigación Multidisciplinario en Ciencia y Tecnología, y Departamento de Física, Universidad de La Serena, La Serena, Chile; (d)Department of Physics, Universidad Andres Bello, Santiago, Chile; (e)Instituto de Alta Investigación, Universidad de Tarapacá, Arica, Chile; (f)Departamento de Física, Universidad Técnica Federico Santa María, Valparaíso, Chile
- 140 Department of Physics, Institute of Science, Tokyo, Japan
- 141 Department of Physics, University of Washington, Seattle, WA, USA
- 142 Department of Physics and Astronomy, University of Sheffield, Sheffield, UK
- 143 Department of Physics, Shinshu University, Nagano, Japan
- 144 Department Physik, Universität Siegen, Siegen, Germany
- 145 Department of Physics, Simon Fraser University, Burnaby, BC, Canada
- 146 SLAC National Accelerator Laboratory, Stanford, CA, USA
- 147 Department of Physics, Royal Institute of Technology, Stockholm, Sweden
- 148 Departments of Physics and Astronomy, Stony Brook University, Stony Brook, NY, USA
- 149 Department of Physics and Astronomy, University of Sussex, Brighton, UK
- 150 School of Physics, University of Sydney, Sydney, Australia
- 151 Institute of Physics, Academia Sinica, Taipei, Taiwan
- 152 (a)E. Andronikashvili Institute of Physics, Iv. Javakhishvili Tbilisi State University, Tbilisi, Georgia; (b)High Energy Physics Institute, Tbilisi State University, Tbilisi, Georgia; (c)University of Georgia, Tbilisi, Georgia
- 153 Department of Physics, Technion, Israel Institute of Technology, Haifa, Israel
- 154 Raymond and Beverly Sackler School of Physics and Astronomy, Tel Aviv University, Tel Aviv, Israel
- 155 Department of Physics, Aristotle University of Thessaloniki, Thessaloniki, Greece
- 156 International Center for Elementary Particle Physics and Department of Physics, University of Tokyo, Tokyo, Japan
- 157 Department of Physics, University of Toronto, Toronto, ON, Canada
- 158 (a)TRIUMF, Vancouver, BC, Canada; (b)Department of Physics and Astronomy, York University, Toronto, ON, Canada
- 159 Division of Physics and Tomonaga Center for the History of the Universe, Faculty of Pure and Applied Sciences, University of Tsukuba, Tsukuba, Japan

- ¹⁶⁰ Department of Physics and Astronomy, Tufts University, Medford, MA, USA
 - ¹⁶¹ Department of Physics and Astronomy, University of California Irvine, Irvine, CA, USA
 - ¹⁶² University of Sharjah, Sharjah, United Arab Emirates
 - ¹⁶³ Department of Physics and Astronomy, University of Uppsala, Uppsala, Sweden
 - ¹⁶⁴ Department of Physics, University of Illinois, Urbana, IL, USA
 - ¹⁶⁵ Instituto de Física Corpuscular (IFIC), Centro Mixto Universidad de Valencia-CSIC, Valencia, Spain
 - ¹⁶⁶ Department of Physics, University of British Columbia, Vancouver, BC, Canada
 - ¹⁶⁷ Department of Physics and Astronomy, University of Victoria, Victoria, BC, Canada
 - ¹⁶⁸ Fakultät für Physik und Astronomie, Julius-Maximilians-Universität Würzburg, Würzburg, Germany
 - ¹⁶⁹ Department of Physics, University of Warwick, Coventry, UK
 - ¹⁷⁰ Waseda University, Tokyo, Japan
 - ¹⁷¹ Department of Particle Physics and Astrophysics, Weizmann Institute of Science, Rehovot, Israel
 - ¹⁷² Department of Physics, University of Wisconsin, Madison, WI, USA
 - ¹⁷³ Fakultät für Mathematik und Naturwissenschaften, Fachgruppe Physik, Bergische Universität Wuppertal, Wuppertal, Germany
 - ¹⁷⁴ Department of Physics, Yale University, New Haven, CT, USA
- ^a Also Affiliated with an institute covered by a cooperation agreement with CERN, Geneva, Switzerland
 - ^b Also at An-Najah National University, Nablus, Palestine
 - ^c Also at Borough of Manhattan Community College, City University of New York, New York, NY, USA
 - ^d Also at Center for High Energy Physics, Peking University, China
 - ^e Also at Center for Interdisciplinary Research and Innovation (CIRI-AUTH), Thessaloniki, Greece
 - ^f Also at Centro Studi e Ricerche Enrico Fermi, Rome, Italy
 - ^g Also at CERN, Geneva, Switzerland
 - ^h Also at Département de Physique Nucléaire et Corpusculaire, Université de Genève, Geneva, Switzerland
 - ⁱ Also at Departament de Física de la Universitat Autònoma de Barcelona, Barcelona, Spain
 - ^j Also at Department of Financial and Management Engineering, University of the Aegean, Chios, Greece
 - ^k Also at Department of Physics, California State University, Sacramento, USA
 - ^l Also at Department of Physics, King's College London, London, UK
 - ^m Also at Department of Physics, Stanford University, Stanford, CA, USA
 - ⁿ Also at Department of Physics, Stellenbosch University, Stellenbosch, South Africa
 - ^o Also at Department of Physics, University of Fribourg, Fribourg, Switzerland
 - ^p Also at Department of Physics, University of Thessaly, Thessaly, Greece
 - ^q Also at Department of Physics, Westmont College, Santa Barbara, USA
 - ^r Also at Faculty of Physics, Sofia University, 'St. Kliment Ohridski', Sofia, Bulgaria
 - ^s Also at Hellenic Open University, Patras, Greece
 - ^t Also at Institutio Catalana de Recerca i Estudis Avancats, ICREA, Barcelona, Spain
 - ^u Also at Institut für Experimentalphysik, Universität Hamburg, Hamburg, Germany
 - ^v Also at Institute for Nuclear Research and Nuclear Energy (INRNE) of the Bulgarian Academy of Sciences, Sofia, Bulgaria
 - ^w Also at Institute of Applied Physics, Mohammed VI Polytechnic University, Ben Guerir, Morocco
 - ^x Also at Institute of Particle Physics (IPP), Toronto, Canada
 - ^y Also at Institute of Physics and Technology, Mongolian Academy of Sciences, Ulaanbaatar, Mongolia
 - ^z Also at Institute of Physics, Azerbaijan Academy of Sciences, Baku, Azerbaijan
 - ^{aa} Also at Institute of Theoretical Physics, Ilia State University, Tbilisi, Georgia
 - ^{ab} Also at Lawrence Livermore National Laboratory, Livermore, USA
 - ^{ac} Also at National Institute of Physics, University of the Philippines, Diliman, Philippines
 - ^{ad} Also at Technical University of Munich, Munich, Germany
 - ^{ae} Also at The Collaborative Innovation Center of Quantum Matter (CICQM), Beijing, China
 - ^{af} Also at TRIUMF, Vancouver, BC, Canada
 - ^{ag} Also at Università di Napoli Parthenope, Naples, Italy
 - ^{ah} Also at Department of Physics, University of Colorado Boulder, Boulder, CO, USA
 - ^{ai} Also at Washington College, Chestertown, MD, USA

^{aj} Also at Physics Department, Yeditepe University, Istanbul, Türkiye

* Deceased