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Y;Ming, Y;Mir, LM;Mirto, A;Mistry, KP;Mitani, T;Mitrevski, J;Mitsou, VA;Miucci, A;Miyagawa, PS;Mizukami, A;Mjoernmark, JU;Mkrtchyan, T;Mlynarikova, M;Moa, T;Mochizuki, K;Mogg, P;Mohapatra, S;Molander, S;Moles-Valls, R;Mondragon, MC;Moenig, K;Monk, J;Monnier, E;Montalbano, A;Berlingen, JM;Monticelli, F;Monzani, S;Morange, N;Moreno, D;Moreno Llacer, M;Morettini, P;Morgenstern, M;Morgenstern, S;Mori, D;Morii, M;Morinaga, M;Morisbak, V;Morley, AK;Mornacchi, G;Morris, AP;Morris, JD;Morvaj, L;Moschovakos, P;Mosidze, M;Moss, HJ;Moss, J;Motohashi, K;Mount, R;Mountricha, E;Moyses, EJW;Muanza, S;Mueller, F;Mueller, J;Mueller, RSP;Muenstermann, D;Mullier, GA;Sanchez, FJM;Murin, P;Murray, WJ;Murrone, A;Muskinja, M;Mwewa, C;Myagkov, AG;Myers, J;Myska, M;Nachman, BP;Nackenhorst, O;Nagai, K;Nagano, K;Nagasaka, Y;Nagel, M;Nagy, E;Nairz, AM;Nakahama, Y;Nakamura, K;Nakamura, T;Nakano, I;Nanjo, H;Napolitano, F;Garcia, RFN;Narayan, R;Villar, DIN;Naryshkin, I;Naumann, T;Navarro, G;Nayyar, R;Neal, HA;Nechaeva, PY;Neep, TJ;Negri, A;Negrini, M;Nektarijevic, S;Nellist, C;Nelson, ME;Nemecek, S;Nemethy, P;Nessi, M;Neubauer, MS;Neumann, M;Newman, PR;Ng, TY;Ng, YS;Nguyen, HDN;Manh, TN;Nibigira, E;Nickerson, RB;Nicolaidou, R;Nielsen, J;Nikiforou, N;Nikolaenko, V;Nikolic-Audit, I;Nikolopoulos, K;Nilsson, P;Ninomiya, Y;Nisati, A;Nishu, N;Nisius, R;Nitsche, I;Nitta, T;Nobe, T;Noguchi, Y;Nomachi, M;Nomidis, I;Nomura, MA;Nooney, T;Nordberg, M;Norjoharuddeen, N;Novak, T;Novgorodova, O;Novotny, R;Nozka, L;Ntekas, K;Nurse, E;Nutti, F;Oakham, FG;Oberlack, H;Obermann, T;Ocariz, J;Ochi, A;Ochoa, I;Ochoa-Ricoux, JP;O'Connor, K;Oda, S;Odaka, S;Oerdek, S;Oh, A;Oh, SH;Ohm, CC;Oide, H;Ojeda, ML;Okawa, H;Okazaki, Y;Okumura, Y;Okuyama, T;Olariu, A;Seabra, LFO;Pino, SAO;Damazio, DO;Oliver, JL;Olsson, MJR;Olszewski, A;Olszowska, J;O'Neil, DC;Onofre, A;Onogi, K;Onyisi, PUE;Oppen, H;Oreglia, MJ;Oren, Y;Orestano, D;Orgill, EC;Orlando, N;O'Rourke, AA;Orr, RS;Osculati, B;O'Shea, V;Ospanov, R;Otero y Garzon, G;Otono, H;Ouchrif, M;Ould-Saada, F;Ouraou, A;Ouyang, Q;Owen, M;Owen, RE;Ozcan, VE;Ozturk, N;Pacalt, J;Pacey, HA;Pachal, K;Pages, AP;Rodriguez, LP;Aranda, CP;Griso, SP;Paganini, M;Palacino, G;Palazzo, S;Palestini, S;Palka, M;Pallin, D;Panagoulas, I;Pandini, CE;Vazquez, JGP;Pani, P;Panizzo, G;Paolozzi, L;Papadopoulou, TD;Papageorgiou, K;Paramonov, A;Hernandez, DP;Saenz, SRP;Parida, B;Parker, AJ;Parker, KA;Parker, MA;Parodi, F;Parsons, JA;Parzefall, U;Pascuzzi, VR;Pasner, JMP;Pasqualucci, E;Passaggio, S;Pastore, F;Pasuwan, P;Patariaia, S;Pater, JR;Pathak, A;Pauly, T;Pearson, B;Pedersen, M;Diaz, LP;Pedro, R;Peleganchuk, SV;Penc, O;Peng, C;Peng, H;Peralva, BS;Perego, MM;Peixoto, APP;Perepelitsa, DV;Peri, F;Perini, L;Pernegger, H;Perrella, S;Peshekhonov, VD;Peters, K;Peters, RFY;Petersen, BA;Petersen, TC;Petit, E;Petridis, A;Petridou, C;Petroff, P;Petrov, M;Petrucci, F;Pettee, M;Pettersson, NE;Peyaud, A;Pezoa, R;Pham, T;Phillips, FH;Phillips, PW;Piacquadio, G;Pianori, E;Picazio, A;Pickering, MA;Pickles, RH;Piegaia, R;Pilcher, JE;Pilkington, AD;Pinamonti, M;Pinfeld, JL;Pitt, M;Pleier, M-A;Pleskot, V;Plotnikova, E;Pluth, D;Podberezko, P;Poettgen, R;Poggi, R;Poggioli, L;Pogrebnyak, I;Pohl, D;Pokharel, I;Polesello, G;Poley, A;Policicchio, A;Polifka, R;Polini, A;Pollard, CS;Polychronakos, V;Ponomarenko, D;Pontecorvo, L;Popeneciu, GA;Quintero, DMP;Pospisil, S;Potamianos, K;Potrap, IN;Potter, CJ;Potti, H;Poulsen, T;Poveda, J;Powell, TD;Astigarraga, MEP;Pralavorio, P;Prell, S;Price, D;Primavera, M;Prince, S;Proklova, N;Prokofiev, K;Prokoshin, F;Protopopescu, S;Proudfoot, J;Przybycien, M;Puri, A;Puzo, P;Qian, J;Qin, Y;Quadt, A;Queitsch-Maitland, M;Qureshi, A;Rados, P;Ragusa, F;Rahal, G;Raine, JA;Rajagopalan, S;Morales, AR;Rashid, T;Raspopov, S;Ratti, MG;Rauch, DM;Rauscher, F;Rave, S;Ravina, B;Ravinovich, I;Rawling, JH;Raymond, M;Read, AL;Radioff, NP;Reale, M;Rebuzzi, DM;Redelbach, A;Redlinger, G;Reece, R;Reed, RG;Reeves, K;Rehnisch, L;Reichert, J;Reiss, A;Rembser, C;Ren, H;Rescigno, M;Resconi, S;Resseguie, ED;Rettie, S;Reynolds, E;Rezanova, OL;Reznicek, P;Ricci, E;Richter, R;Richter, S;Richter-Was, E;Ricken, O;Ridel, M;Rieck, P;Riegel, CJ;Rifki, O;Rijssenbeek, M;Rimoldi,

A;Rimoldi, M;Rinaldi, L;Ripellino, G;Ristic, B;Ritsch, E;Riu, I;Vergara, JCR;Rizatdinova, F;Rizvi, E;Rizzi, C;Roberts, RT;Robertson, SH;Robinson, D;Robinson, JEM;Robson, A;Rocco, E;Roda, C;Rodina, Y;Rodriguez Bosca, S;Perez, AR;Rodriguez Rodriguez, D;Vera, AMR;Roe, S;Rogan, CS;Rohne, O;Roehrig, R;Roland, CPA;Roloff, J;Romaniouk, A;Romano, M;Rompotis, N;Ronzani, M;Roos, L;Rosati, S;Rosbach, K;Rose, P;Rosien, N-A;Rossi, E;Rossi, E;Rossi, LP;Rossini, L;Rosten, JHN;Rosten, R;Rotaru, M;Rothberg, J;Rousseau, D;Roy, D;Rozanov, A;Rozen, Y;Ruan, X;Rubbo, F;Ruehr, F;Ruiz-Martinez, A;Rurikova, Z;Rusakovich, NA;Russell, HL;Rutherford, JP;Ruettinger, EM;Ryabov, YF;Rybar, M;Rybkin, G;Ryu, S;Ryzhov, A;Rzehorz, GF;Sabatini, P;Sabato, G;Sacerdoti, S;Sadrozinski, HF-W;Sadykov, R;Tehrani, FS;Saha, P;Sahinsoy, M;Sahu, A;Saimpert, M;Saito, M;Saito, T;Sakamoto, H;Sakharov, A;Salamani, D;Salamanna, G;Loyola, JES;Salek, D;De Bruin, PHS;Salihagic, D;Salnikov, A;Salt, J;Salvatore, D;Salvatore, F;Salvucci, A;Salzburger, A;Samarati, J;Sammel, D;Sampsonidis, D;Sampsonidou, D;Sanchez, J;Pineda, AS;Sandaker, H;Sander, CO;Sandhoff, M;Sandoval, C;Sankey, DPC;Sannino, M;Sano, Y;Sansoni, A;Santoni, C;Santos, H;Castillo, IS;Santra, A;Sapronov, A;Saraiva, JG;Sasaki, O;Sato, K;Sauvan, E;Savard, P;Savic, N;Sawada, R;Sawyer, C;Sawyer, L;Sbarra, C;Sbrizzi, A;Scanlon, T;Schaarschmidt, J;Schacht, P;Schachtner, BM;Schaefer, D;Schaefer, L;Schaeffer, J;Schaepe, S;Schaefer, U;Schaffer, AC;Schaile, D;Schamberger, RD;Scharmberg, N;Schegelsky, VA;Scheirich, D;Schenck, F;Schernau, M;Schiavi, C;Schier, S;Schildgen, LK;Schillaci, ZM;Schioppa, EJ;Schioppa, M;Schleicher, KE;Schlenker, S;Schmidt-Sommerfeld, KR;Schmieden, K;Schmitt, C;Schmitt, S;Schmitz, S;Schmoeckel, JC;Schnoor, U;Schoeffel, L;Schoening, A;Schopf, E;Schott, M;Schouwenberg, JFP;Schovancova, J;Schramm, S;Schulte, A;Schultz-Coulon, H-C;Schumacher, M;Schumm, BA;Schune, P;Schwartzman, A;Schwarz, TA;Schweiger, H;Schwemling, P;Schwienhorst, R;Sciandra, A;Sciolla, G;Scornajenghi, M;Scuri, F;Scutti, F;Scyboz, LM;Searcy, J;Sebastiani, CD;Seema, P;Seidel, SC;Seiden, A;Seiss, T;Seixas, JM;Sekhniaidze, G;Sekhon, K;Sekula, SJ;Semprini-Cesari, N;Sen, S;Senkin, S;Serfon, C;Serin, L;Serkin, L;Sessa, M;Severini, H;Sforza, F;Sfyrla, A;Shabalina, E;Shahinian, JD;Shaikh, NW;Shan, LY;Shang, R;Shank, JT;Shapiro, M;Sharma, AS;Sharma, A;Shatalov, PB;Shaw, K;Shaw, SM;Shcherbakova, A;Shen, Y;Sherafati, N;Sherman, AD;Sherwood, P;Shi, L;Shimizu, S;Shimmin, CO;Shimajima, M;Shipsey, IPJ;Shirabe, S;Shiyakova, M;Shlomi, J;Shmeleva, A;Saadi, DS;Shochet, MJ;Shojaii, S;Shope, DR;Shrestha, S;Shulga, E;Sicho, P;Sickles, AM;Sidebo, PE;Haddad, ES;Sidiropoulou, O;Sidoti, A;Siegert, F;Sijacki, D;Silva, J;Silva, M;Oliveira, MVS;Silverstein, SB;Simic, L;Simion, S;Simioni, E;Simon, M;Simoniello, R;Sinervo, P;Sinev, NB;Sioli, M;Siragusa, G;Siral, I;Sivoklov, SY;Sjoelin, J;Skubic, P;Slater, M;Slavicek, T;Slawinska, M;Sliwa, K;Slovak, R;Smakhtin, V;Smart, BH;Smiesko, J;Smirnov, N;Smirnov, SY;Smirnov, Y;Smirnova, LN;Smirnova, O;Smith, JW;Smith, MNK;Smizanska, M;Smolek, K;Smykiewicz, A;Snesarev, AA;Snyder, IM;Snyder, S;Sobie, R;Soffa, AM;Soffer, A;Sogaard, A;Soh, DA;Sokhrannyi, G;Sanchez, CAS;Solar, M;Soldatov, EY;Soldevila, U;Solodkov, AA;Soloshenko, A;Solovyanov, OV;Solovyev, V;Sommer, P;Son, H;Song, W;Song, WY;Sopczak, A;Sopkova, F;Sosa, D;Sotiropoulou, CL;Sottocornola, S;Soualah, R;Soukharev, AM;South, D;Sowden, BC;Spagnolo, S;Spalla, M;Spangenberg, M;Spano, F;Sperlich, D;Spettel, F;Spieker, TM;Spighi, R;Spigo, G;Spiller, LA;Spiteri, DP;Spousta, M;Stabile, A;Stamen, R;Stamm, S;Stanecka, E;Stanek, RW;Stanescu, C;Stanislaus, B;Stanitzki, MM;Stapf, B;Stapnes, S;Starchenko, EA;Stark, GH;Stark, J;Stark, SH;Staroba, P;Starovoitov, P;Staerz, S;Staszewski, R;Stegler, M;Steinberg, P;Stelzer, B;Stelzer, HJ;Stelzer-Chilton, O;Stenzel, H;Stevenson, TJ;Stewart, GA;Stockton, MC;Stoica, G;Stolte, P;Stonjek, S;Straessner, A;Strandberg, J;Strandberg, S;Strauss, M;Strizenec, P;Stroehmer, R;Strom, DM;Stroynowski, R;Strubig, A;Stucci, SA;Stugu, B;Stupak, J;Styles, NA;Su, D;Su, J;Suchek, S;Sugaya, Y;Suk, M;Sulin, VV;Sultan,

DMS;Sultansoy, S;Sumida, T;Sun, S;Sun, X;Suruliz, K;Suster, CJE;Sutton, MR;Suzuki, S;Svatos, M;Swiatlowski, M;Swift, SP;Sydorenko, A;Sykora, I;Sykora, T;Ta, D;Tackmann, K;Taenzer, J;Taffard, A;Tafirout, R;Tahirovic, E;Taiblum, N;Takai, H;Takashima, R;Takasugi, EH;Takeda, K;Takeshita, T;Takubo, Y;Talby, M;Talyshv, AA;Tanaka, J;Tanaka, M;Tanaka, R;Tannenwald, BB;Araya, ST;Tapprogge, S;Mohamed, ATA;Tarem, S;Tarna, G;Tartarelli, GF;Tas, P;Tasevsky, M;Tashiro, T;Tassi, E;Delgado, AT;Tayalati, Y;Taylor, AC;Taylor, AJ;Taylor, GN;Taylor, PTE;Taylor, W;Tee, AS;Teixeira-Dias, P;Ten Kate, H;Teng, PK;Teoh, JJ;Tepel, F;Terada, S;Terashi, K;Terron, J;Terzo, S;Testa, M;Teuscher, RJ;Thais, SJ;Theveneaux-Pelzer, T;Thiele, F;Thomas, DW;Thomas, JP;Thompson, AS;Thompson, PD;Thomsen, LA;Thomson, E;Tian, Y;Torres, RET;Tikhomirov, VO;Tikhonov, YA;Timoshenko, S;Tipton, P;Tisserant, S;Todome, K;Todorova-Nova, S;Todt, S;Tojo, J;Tokar, S;Tokushuku, K;Tolley, E;Tomiwa, KG;Tomoto, M;Tompkins, L;Toms, K;Tong, B;Tornambe, P;Torrence, E;Torres, H;Pastor, ET;Tosciri, C;Toth, J;Touchard, F;Tovey, DR;Treado, CJ;Trefzger, T;Tresoldi, F;Tricoli, A;Trigger, IM;Trincaz-Duvoid, S;Tripiana, MF;Trischuk, W;Trocme, B;Trofymov, A;Troncon, C;Trovatelli, M;Trovato, F;Truong, L;Trzebinski, M;Trzupek, A;Tsai, F;Tseng, JC-L;Tsiareshka, PV;Tsirigotis, A;Tsirintanis, N;Tsiskaridze, V;Tskhadadze, EG;Tsukerman, II;Tsulaia, V;Tsuno, S;Tsybychev, D;Tu, Y;Tudorache, A;Tudorache, V;Tulbure, TT;Tuna, AN;Turchikhin, S;Turgeman, D;Cakir, IT;Turra, R;Tuts, PM;Tzovara, E;Ucchielli, G;Ueda, I;Ughetto, M;Ukegawa, F;Unal, G;Undrus, A;Unel, G;Ungaro, FC;Unno, Y;Uno, K;Urban, J;Urquijo, P;Urrejola, P;Usai, G;Usui, J;Vacavant, L;Vacek, V;Vachon, B;Vadla, KOH;Vaidya, A;Valderanis, C;Santurio, EV;Valente, M;Valentinetti, S;Valero, A;Valery, L;Vallance, RA;Vallier, A;Valls Ferrer, JA;Van Daalen, TR;Van der Graaf, H;Van Gemmeren, P;Van Nieuwkoop, J;Van Vulpen, I;Vanadia, M;Vandelli, W;Vaniachine, A;Vankov, P;Vari, R;Varnes, EW;Varni, C;Varol, T;Varouchas, D;Varvell, KE;Vasquez, GA;Vasquez, JG;Vazeille, F;Vazquez Furelos, D;Vazquez Schroeder, T;Veatch, J;Vecchio, V;Veloce, LM;Veloso, F;Veneziano, S;Ventura, A;Venturi, M;Venturi, N;Vercesi, V;Verducci, M;Infante, CMV;Vergis, C;Verkerke, W;Vermeulen, AT;Vermeulen, JC;Vetterli, MC;Maira, NV;Pinto, MVB;Vichou, I;Vickey, T;Boeriu, OEV;Viehhauser, GHA;Viel, S;Vigani, L;Villa, M;Perez, MV;Vilucchi, E;Vincter, MG;Vinogradov, VB;Vishwakarma, A;Vittori, C;Vivarelli, I;Vlachos, S;Vogel, M;Vokac, P;Volpi, G;von Buddenbrock, SE;Von Toerne, E;Vorobel, V;Vorobev, K;Vos, M;Vossebeld, JH;Vranjes, N;Milosavljevic, MV;Vrba, V;Vreeswijk, M;Sfiligoj, T;Vuillermet, R;Vukotic, I;Zenis, T;Zivkovic, L;Wagner, P;Wagner, W;Wagner-Kuhr, J;Wahlberg, H;Wahrmund, S;Wakamiya, K;Walbrecht, VM;Walder, J;Walker, R;Walker, SD;Walkowiak, W;Wallangen, V;Wang, AM;Wang, C;Wang, F;Wang, H;Wang, H;Wang, J;Wang, J;Wang, P;Wang, Q;Wang, R-J;Wang, R;Wang, R;Wang, SM;Wang, WT;Wang, W;Wang, WX;Wang, Y;Wang, Z;Wanotayaroj, C;Warburton, A;Ward, CP;Wardrope, DR;Washbrook, A;Watkins, PM;Watson, AT;Watson, MF;Watts, G;Watts, S;Waugh, BM;Webb, AF;Webb, S;Weber, C;Weber, MS;Weber, SA;Weber, SM;Weidberg, AR;Weinert, B;Weingarten, J;Weirich, M;Weiser, C;Wells, PS;Wenaus, T;Wengler, T;Wenig, S;Wermes, N;Werner, MD;Werner, P;Wessels, M;Weston, TD;Whalen, K;Whallon, NL;Wharton, AM;White, AS;White, A;White, MJ;White, R;Whiteson, D;Whitmore, BW;Wickens, FJ;Wiedenmann, W;Wielers, M;Wiglesworth, C;Wiik-Fuchs, LAM;Wildauer, A;Wilk, F;Wilkens, HG;Wilkins, LJ;Williams, HH;Williams, S;Willis, C;Willocq, S;Wilson, JA;Wingerter-Seez, I;Winkels, E;Winklmeier, F;Winston, OJ;Winter, BT;Wittgen, M;Wobisch, M;Wolf, A;Wolf, TMH;Wolff, R;Wolter, MW;Wolters, H;Wong, VWS;Woods, NL;Worm, SD;Wosiek, BK;Wozniak, KW;Wraight, K;Wu, M;Wu, SL;Wu, X;Wu, Y;Wyatt, TR;Wynne, BM;Xella, S;Xi, Z;Xia, L;Xu, D;Xu, H;Xu, L;Xu, T;Xu, W;Yabsley, B;Yacoob, S;Yajima, K;Yallup, DP;Yamaguchi, D;Yamaguchi, Y;Yamamoto, A;Yamanaka, T;Yamane, F;Yamatani, M;Yamazaki, T;Yamazaki, Y;Yan, Z;Yang, HJ;Yang, HT;Yang, S;Yang, Y;Yang, Z;Yao, W-M;Yap, YC;Yasu, Y;Yatsenko, E;Ye, J;Ye, S;Yeletsikh, I;Yigitbasi, E;Yildirim, E;Yorita, K;Yoshihara,

K;Young, CJS;Young, C;Yu, J;Yu, J;Yue, X;Yuen, SPY;Zabinski, B;Zacharis, G;Zaffaroni, E;Zaidan, R;Zaitsev, AM;Zakareishvili, T;Zakharchuk, N;Zaliecckas, J;Zambito, S;Zanzi, D;Zaripovas, DR;Zeissner, SV;Zeitnitz, C;Zemaityte, G;Zeng, JC;Zeng, Q;Zenin, O;Zerwas, D;Zgubic, M;Zhang, DF;Zhang, D;Zhang, F;Zhang, G;Zhang, H;Zhang, J;Zhang, L;Zhang, L;Zhang, M;Zhang, P;Zhang, R;Zhang, R;Zhang, X;Zhang, Y;Zhang, Z;Zhao, P;Zhao, X;Zhao, Y;Zhao, Z;Zhemchugov, A;Zhou, B;Zhou, C;Zhou, L;Zhou, MS;Zhou, M;Zhou, N;Zhou, Y;Zhu, CG;Zhu, HL;Zhu, H;Zhu, J;Zhu, Y;Zhuang, X;Zhukov, K;Zhulanov, V;Zibell, A;Zieminska, D;Zimine, NI;Zimmermann, S;Zinonos, Z;Zinser, M;Ziolkowski, M;Zobernig, G;Zoccoli, A;Zoch, K;Zorbas, TG;Zou, R;Nedden, MZ;Zwalinski, L

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Search for diboson resonances in hadronic final states in 139 fb<sup>-1</sup> of pp collisions at root s = 13TeV with the ATLAS detector (vol 09, 091, 2019)

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# Erratum: Search for diboson resonances in hadronic final states in $139 \text{ fb}^{-1}$ of pp collisions at $\sqrt{s} = 13 \text{ TeV}$ with the ATLAS detector

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## The ATLAS collaboration

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A mistake was identified for the paper [1] in the treatment of the radion [2] cross-sections, which resulted in multiple changes:

1. section 4.1 was updated to list the correct cross-sections for the production of a 2 TeV or 3 TeV radion decaying to  $WW$ , which are 6.3 fb and 0.61 fb respectively (3.1 fb and 0.30 fb for radion decays to  $ZZ$ );
2. the predicted cross-section times branching ratio for radion models was incorrectly stated, and is now correctly listed in table 1 (correcting table 2 from the paper [1]);
3. previously the radion could not be excluded in any mass range due to this mistaken cross-section, while now radion masses are excluded for different mass ranges as fixed in table 2 (correcting table 3 from the paper [1]).

Given these fixes, the results now exclude the production of  $WW + ZZ$  from the scalar-like radion at the 95% CL in the range 1.3 TeV–3.0 TeV.

Mass [TeV]	Observed Limit [fb]	Expected Limit [fb]	Prediction [fb]
2.0	5.72	5.75	9.4
3.0	1.86	2.85	0.92
4.0	1.98	2.34	0.089
5.0	1.98	2.02	0.012

**Table 1.** Observed and expected limits at 95% CL on cross-section times branching ratio for  $WW + ZZ$  production for different radion masses  $m_{\text{radion}}$ , as well as the predicted cross-section times branching ratio.

Model	Signal Region	Excluded mass range [TeV]
Radion	$WW$	1.3–2.8
	$ZZ$	1.6–2.1
	$WW + ZZ$	1.3–3.0
HVT model A, $g_V = 1$	$WW$	1.3–2.9
	$WZ$	1.3–3.4
	$WW + WZ$	1.3–3.5
HVT model B, $g_V = 3$	$WW$	1.3–3.1
	$WZ$	1.3–3.6
	$WW + WZ$	1.3–3.8
Bulk RS, $k/\overline{M}_{\text{Pl}} = 1$	$WW$	1.3–1.6
	$ZZ$	none
	$WW + ZZ$	1.3–1.8

**Table 2.** Observed excluded resonance masses (at 95% CL) in the individual and combined signal regions for the HVT, bulk RS and radion models.

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## References

- [1] ATLAS collaboration, *Search for diboson resonances in hadronic final states in 139 fb<sup>-1</sup> of pp collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector*, *JHEP* **09** (2019) 091 [[arXiv:1906.08589](https://arxiv.org/abs/1906.08589)] [[INSPIRE](#)].
- [2] A. Oliveira, *Gravity particles from Warped Extra Dimensions, predictions for LHC*, [arXiv:1404.0102](https://arxiv.org/abs/1404.0102) [[INSPIRE](#)].

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