## **Editorial Introduction: Fourth Planetary Dunes Workshop Special Issue**

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Manuscript for Submission to Aeolian Research

Special Issue: Aeolian Research Special Issue for the Fourth International Planetary Dunes Workshop

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| 1        |                                |
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| 2        | Integrating                    |
| 3        | :, Idaho (see                  |
| 4        | n two and a                    |
| 5        | to Bruneau                     |
| 6        | sits created                   |
| 7        | processes).                    |
| 8        | Earth, Mars,                   |
| 9        | ose of this                    |
| 10       | ew ideas and                   |
| 11       | ng programs,                   |
| 12       | op website                     |
| 13       |                                |
| 4.4      |                                |
| 14       | ome of the                     |
| 15       | an studies of series were      |
| 16<br>17 |                                |
| 18       | ian (2014). A                  |
| 19       | also reported<br>sible without |
| 20       | us, the other                  |
| 21       | Lori Fenton,                   |
| 22       | ession chairs,                 |
| 23       | and Bruneau                    |
| 24       |                                |
|          |                                |
| 25       | ive input and                  |
| 26       | ue, provided                   |
| 27       | nanager, was                   |
| 28       | owledge Tim                    |
| 29       | or the papers                  |
| 30       | nsible for the                 |
| 31       |                                |
| 22       | ud towarts for                 |
| 32<br>33 | nd targets for<br>dies and the |
| 34       | e of repeat-                   |
| 35       | ascent areas                   |
| 36       | bedforms in                    |
| 37       | erasimenko).                   |
| 38       | on planetary                   |
| 39       | vell-attended                  |
|          | ven attended                   |

| 40 | been widely              |      |
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| 41 | connaissance             |      |
| 42 | ext given the            |      |
| 43 | <i>uriosity</i> rover    |      |
| 44 | traterrestrial           |      |
| 45 |                          |      |
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| 46 | horphologies,            |      |
| 47 | ionation. The            |      |
| 48 | the presence             |      |
| 49 | e meeting in Comment [MC | ;1]: |
| 50 | e of aeolian             |      |
| 51 | n science (by            |      |
| 52 | dune science             |      |
| 53 | marized.                 |      |
| 54 |                          |      |
| 55 | ; can reveal a           |      |
| 56 | them. Much               |      |
| 57 | ial analogues            |      |
| 58 | gh-resolution            |      |
| 59 | forms termed             |      |
| 60 | tion between             |      |
| 61 | nose of small            |      |
| 62 | e correlation            |      |
| 63 | e authors to             |      |
| 64 | lust flows of            |      |
| 65 |                          |      |
|    |                          |      |
| 66 | without easy             |      |
| 67 | anes of Mars.            |      |
| 68 | nent (HiRISE)            |      |
| 69 | e extraction             |      |
| 70 | erived which             |      |
| 71 | e features. As           |      |
| 72 | isors such as            |      |
| 73 | available, this          |      |
| 74 | ong-standing             |      |
| 75 | apotre et al.            |      |
| 76 | provides an              |      |
| 77 | olian science            |      |
| 78 | ploration and            |      |
| 79 | and Johnson              |      |

| 80  | -resolution (1  |                    |
|-----|-----------------|--------------------|
| 81  | e field in the  |                    |
| 82  | e rientation.   |                    |
| 83  | ie field, with  |                    |
| 84  | e orientation   |                    |
| 85  | ts that, away   |                    |
| 86  | rmative wind    |                    |
|     | Infative wind   |                    |
| 87  |                 |                    |
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| 89  | to be active    |                    |
|     |                 |                    |
| 90  | 11; Chojnacki   |                    |
| 91  | h a variety of  |                    |
| 92  | 1 this special  | Formatted: Danish  |
| 93  | is correlated   | Field Code Changed |
| 94  | ds over many    |                    |
| 95  | as found (i.e.  |                    |
| 96  | t devil tracks  |                    |
| 97  | tor of dune     |                    |
| 98  | vhether early   |                    |
| 99  | , 2015) were    |                    |
| 100 | ibed 13 active  |                    |
| 101 | se dune fields  |                    |
| 102 | of crest fluxes |                    |
| 103 | northeasterly-  |                    |
| 104 | analysis had    |                    |
| 105 |                 |                    |
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| 106 | field of White  |                    |
| 107 | dunes partially |                    |
| 108 | low density of  |                    |
| 109 | nafic rocks (on |                    |
| 110 | s sorting, and  |                    |
| 111 | eralogies. By   |                    |
| 112 | nsity grains in |                    |
| 113 | possibility of  |                    |
| 114 | . ,             |                    |
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| 116 | illustrate how  | Comment [MC2]:     |
| 117 | environments    |                    |
| 118 | The article by  |                    |

| 119 | irrent state of                   |                |
|-----|-----------------------------------|----------------|
| 120 | Those authors                     |                |
| 121 | ies (e.g., wind                   |                |
| 122 | ta and surface                    |                |
| 123 | hose missions.                    |                |
| 124 | uch as climate                    |                |
| 125 | ayed a role in                    |                |
| 126 | (2017) take a                     |                |
| 127 | the potential                     |                |
| 128 | ilarities of the                  |                |
| 129 | es of resultant                   |                |
| 130 | • collaboration                   |                |
| 131 |                                   | Comment [MC3]: |
|     |                                   |                |
| 132 | ts of planetary                   |                |
| 133 | ty has studied                    |                |
| 134 | candidates on                     |                |
| 135 | ose authors go                    |                |
| 136 | ם a consistent                    |                |
| 137 | pe (e.g., flyby                   |                |
| 138 | that planetary                    |                |
| 139 | (which, whilst                    |                |
| 140 | -up trajectory                    |                |
| 141 | llowing a top-                    |                |
| 142 | nce of aeolian                    |                |
| 143 | ique different                    |                |
| 144 |                                   |                |
|     |                                   |                |
| 145 |                                   |                |
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| 146 | vailable to the                   | Comment [MC4]: |
| 147 | y researchers.                    |                |
| 148 | with specific                     |                |
| 149 | accumulation,                     |                |
| 150 | t despite such                    |                |
| 151 | ant dunes and                     |                |
| 152 | nizable across                    |                |
| 153 | fectiveness of                    |                |
| 154 | nes Workshop                      |                |
| 155 | ו Special Issue                   |                |
| 156 | <ul> <li>International</li> </ul> |                |
| 157 | ge, Utah (see                     |                |
| 158 | next meeting                      |                |
| 159 | tion in aeolian                   |                |

| 160               | nality) suggest                 |                             |
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| 161               | lian processes                  |                             |
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| 163               |                                 |                             |
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| 164               | ation of aerial                 |                             |
| 165               | 5 Journal of                    |                             |
| 166               | 551-560.                        |                             |
| 167               |                                 |                             |
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| 168               | Chojnacki, M.,                  |                             |
| 169               | ds in Aeolian                   |                             |
| 170               | onal Planetary                  |                             |
| 171               | l <mark>d Data, Lunar</mark>    |                             |
| 172               |                                 |                             |
| 470               |                                 |                             |
| 173               | .4. Preliminary                 |                             |
| 174               | the 45th Lunar                  |                             |
| 175               | e, Houston, p.                  |                             |
| 176               |                                 |                             |
| 177               | : Insights into                 | Formatted: Swedish (Sweden) |
| 178               | n Research.                     |                             |
| 179               |                                 |                             |
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| 180               | Radebaugh, J.,                  |                             |
| 181               | on planetary                    |                             |
| 182               | .2010.04.007                    |                             |
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| 183               | S., Golombek,                   |                             |
| 184               | Stantzos, N.,                   |                             |
| 185               | gy 40, 31–34.                   |                             |
| 186               |                                 |                             |
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| 187               | s as compared                   |                             |
| 188               | morphologies,                   |                             |
| 189               | 96–142.                         |                             |
| 190               |                                 |                             |
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| 101               |                                 |                             |
| 191               | bservations of                  |                             |
| 191<br>192<br>193 | bservations of<br>num, Mars. J. |                             |

| 194<br>195<br>196<br>197 | l III, J.F., 2015.<br>m, Mars; new<br>1, 275–290. |
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| 198<br>199               | sediment flux<br>Research.                        |
| 200                      | i Research.                                       |
| 201                      | D., 2016. Our                                     |
| 202<br>203               | n of dunes on<br>D <mark>1</mark>                 |
| 204                      | azin, P., 2016.                                   |
| 205<br>206               | ands National<br>Research.                        |
| 207                      |   |
| 208                      | s on Mars. J.                                     |
| 209                      |   |
| 210                      | dges on Mars.                                     |
| 211                      |   |
| 212                      | ., Becker, K.J.,                                  |
| 213                      | M., Keszthelyi,                                   |
| 214                      | Eliason, E.M.,                                    |
| 215                      | pping of Mars                                     |
| 216<br>217               | hoenix landing                                    |
| 218                      | olian deposits                                    |
| 219                      | 5.001   |
| 220                      | , Rubin, D.M.,                                    |
| 221                      | lges, N.T., Des                                   |
| 222                      | ).W., Mischna,                                    |
| 223                      | 6. Large wind                                     |
| 224                      | <del>353, 55–58</del> .                           |
| 225                      |   |
| 226                      |   |
| 227                      | <mark>, R.L., Mellon,</mark>                      |
| 228                      | econnaissance                                     |

| 229 | Geophys. Res.                  |                |
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| 230 |                                |                |
| 231 | unes: Possible                 |                |
| 232 |                                |                |
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| 233 | hardson, M.I.,                 |                |
| 234 | asavada, A.R.,                 |                |
| 235 | tal Monitoring                 |                |
| 236 | Bagnold Dunes                  |                |
| 237 | sWRF. Icarus.                  |                |
| 238 |                                |                |
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| 239 | migration and                  |                |
| 240 | o <mark>hys. Res. Lett.</mark> |                |
| 241 |                                |                |
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| 242 | on a Variety of                |                |
| 243 |                                |                |
| 244 |                                |                |
| 244 | ig meter-scale                 |                |
| 245 | od analogues?                  |                |
| 246 |                                |                |
| 247 | ssue, and the                  |                |
| 247 | 230, 1–4.                      |                |
| 248 | $250, 1^{-4}.$                 |                |
| 243 |                                |                |
| 250 | <mark>s in planetary</mark>    |                |
| 251 | 11, 109–126.                   |                |
| 252 |                                |                |
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| 253 | prientation on                 |                |
| 254 | lian Research.                 |                |
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| 256 |                                | Comment [MC5]: |